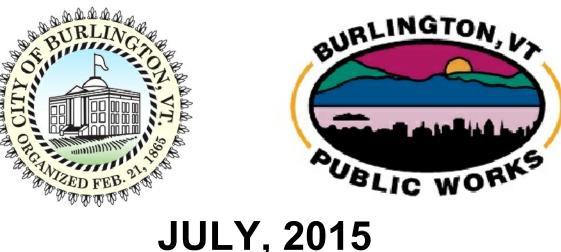
REPAIR PLANS FOR

MARKETPLACE PARKING GARAGE - PHASE I BURLINGTON, VT





LAKEVIEW MARKETPLACE GARAGE (PHASE I) **COLLEGE ST** GARAGE (PHASE

PARKING GARAGE LOCATIONS

CLIENT

100 200 FEET

CITY OF BURLINGTON DEPARTMENT OF PUBLIC WORKS 645 PINE STREET BURLINGTON, VT 05401 PN: (802) 863-9094

LIST OF DRAWINGS

DWG # SHEET# DWG NAME

$DVVO\pi$	OHILL I#	BVGTAAME
TM1.0	1	TITLE SHEET
SM0.0	2	STRUCTURAL NOTES
SM0.1	3	QUANTITIES & SCHEDULES
SM1.0	4	LEVEL 1 STRUCTURAL PLAN
SM1.1	5	LEVEL 2 STRUCTURAL PLAN
SM1.2	6	LEVEL 3 STRUCTURAL PLAN
SM1.3	7	LEVEL 4 STRUCTURAL PLAN
SM1.4	8	LEVEL 5 STRUCTURAL PLAN
SM2.0	9	CONCRETE RAMP REPAIR PLAN
SM3.0	10	TYPICAL CONCRETE REPAIR DETAILS
AM1.0	11	ELEVATOR / STAIR A FLOOR PLANS
AM1.1	12	ELEVATOR / STAIR A FLOOR PLANS
AM2.0	13	ELEVATOR / STAIR A EXTERIOR ELEVATIONS
AM2.1	14	ELEVATOR / STAIR A EXTERIOR ELEVATIONS
AM3.0	15	ELEVATOR / STAIR A BUILDING SECTIONS
AM3.1	16	ELEVATOR / STAIR A BUILDING SECTIONS
AM5.1	17	ELEVATOR/ STAIR A DETAILS
EM1.0	18	BASEMENT LEVEL DEMOLITION & PROPOSED ELECTRICAL/LIGHTING PLANS
EM1.1	19	LEVEL 1 DEMOLITION & PROPOSED ELECTRICAL/LIGHTING PLANS
EM2.0	20	PROPOSED LEVEL 1 LIGHTING PLAN
EM2.1	21	PROPOSED LEVEL 2 LIGHTING PLAN
EM2.2	22	PROPOSED LEVEL 3 LIGHTING PLAN
MM1.1	23	MECHANICAL DEMO & NEW WORK PLANS
MM3.1	24	MECHANICAL CONTROLS DIAGRAMS
MM5.1	25	PLUMBING & MECHANICAL SCHEDULES
PM1.1	26	PLUMBING DEMOLITION & NEW WORK PLANS



Hoyle, Tanner
Associates, Inc.

125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331



Tel: (802) 864-6844

KIRICK ENGINEERING ASSOCIATES, P.C.

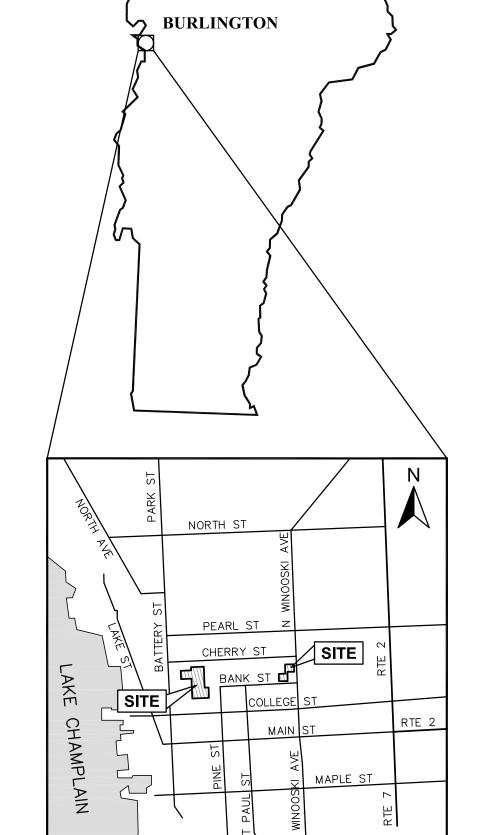


MECHANICAL



SHEET NO.

PROJECT NO. 909044



LOCATION MAP NOT TO SCALE

GENERAL NOTES

- GENERAL NOTES SHALL APPLY TO ALL DRAWINGS PREPARED BY HOYLE, TANNER & ASSOCIATES (HOYLE, TANNER), FREEMAN FRENCH FREEMAN (FFF), KIRICK ASSOCIATES (KIRICK) AND LN CONSULTING (LN) AND THE WORK THEY CONVEY.
- 2. ALL WORK SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND STANDARDS, THE MORE STRINGENT OF WHICH SHALL GOVERN
- 3. QUALITY CONTROL SUCH AS TESTING, CERTIFICATIONS, AND SUBMITTALS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. ADEQUATE TIME SHALL BE GIVEN FOR ENGINEER REVIEW.
- 4. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS AND COORDINATION OF OTHER TRADES.
- 5. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SITE SAFETY SHALL SOLELY BE THE CONTRACTOR'S RESPONSIBILITY.
- 6. ALL DIMENSIONS, ELEVATIONS AND CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR OR RESPONSIBLE TRADES PRIOR TO COMMENCING WITH THE WORK. FABRICATION OR ORDERING MATERIALS. DO NOT SCALE DRAWINGS, USE DIMENSIONS SHOWN.
- 7. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND AS-BUILT CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- UNDER NO CIRCUMSTANCES SHALL THE CONSTRUCTION LOAD ON THE STRUCTURE EXCEED THE DESIGN LOAD WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE ENGINEER.
- 9. HOYLE, TANNER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT ARISE DUE TO THE FAILURE OF THE CONTRACTOR:
 - TO FOLLOW THESE DRAWINGS AND SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY.
 - TO NOTIFY HOYLE, TANNER OF ANY DISCREPANCIES, ERRORS, OMISSIONS OR CONFLICTS AND OBTAIN THEIR GUIDANCE TO RESOLVE.
- 10. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE BUILDING MATERIAL CONCRETE, MASONRY, WOOD, DEBRIS AND OTHER MATERIALS NECESSARY FOR THE SATISFACTORY COMPLETION OF THE CONTRACT WORK AND AS REQUIRED BY THE OWNER. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN STRICT ACCORDANCE WITH VERMONT LAW. REMOVAL AND DISPOSAL COSTS SHALL BE INCIDENTAL TO THEIR RESPECTIVE PAY ITEMS.
- 11. ALL PORTIONS OF THE STRUCTURE SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
- 12. HEIGHT AND WEIGHT RESTRICTIONS APPLY, CONTRACTOR TO CONFIRM CONSTRUCTION VEHICLE ACCESS WITH ENGINEER PRIOR TO CONSTRUCTION.
- 13. THESE DRAWINGS HAVE BEEN DEVELOPED BASED ON THE 1976 RECORD DRAWINGS. AN ELECTRIC COPY OF THESE DRAWINGS CAN BE PROVIDED TO THE CONTRACTOR UPON NOTICE OF AWARD.
- 14. THE CITY WILL BE CONDUCTING A WAYFINDING SIGNAGE PROJECT CONCURRENTLY WITH THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH THE CITY AND ALLOW FOR ACCESS FOR SIGNAGE INSTALLATION. CITY SHALL PROVIDE AN ELECTRONIC COPY OF THE WAYFINDING PLANS UPON CONTRACT AWARD.
- 15. CONTRACTOR SHALL LOCATE PT STRAND LOCATIONS BY NON DESTRUCTIVE MEANS AND PRE-MARK ON SLABS AND BEAMS WHERE SUBCONTRACTOR WORK IS TO OCCUR. CONTRACTOR SHALL COORDINATE THAT NO DRILLING OR FASTENING IS TO OCCUR WITHIN 6" OF STRAND LOCATIONS.

DEMOLITION NOTES

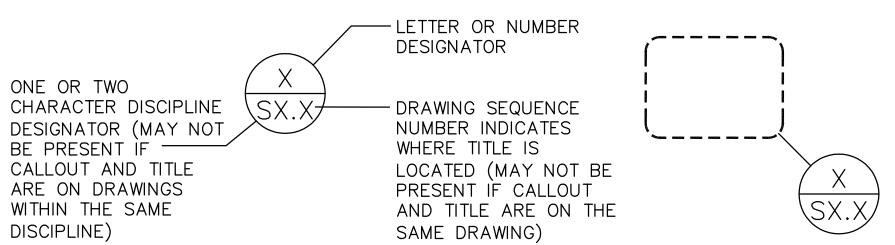
- 1. CONTRACTOR IS RESPONSIBLE FOR COMPLETING DEMOLITION WORK UTILIZING MEANS AND METHODS TO PROTECT WORKERS, PEDESTRIANS, AND VEHICLES AND PREVENT DAMAGE TO STRUCTURAL MEMBERS.
- 2. DAMAGE ARISING FROM DEMOLITION WORK SHALL BE REPAIRED/REPLACED AS PROPOSED AND SUBMITTED BY CONTRACTOR FOR REVIEW, COMMENT, AND APPROVAL BY THE OWNER AND THE ENGINEER. ALL COSTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 3. CONTRACTOR SHALL DESCRIBE DEMOLITION METHODS IN THE PRE-CONSTRUCTION MEETING.
- 4. REMOVAL OF EXISTING CONCRETE FOR ITEMS 030130 IS INCLUDED IN THE RELEVENT PAY ITEMS AS IDENTIFIED IN THE TECHNICAL SPECIFICATIONS.

TRAFFIC CONTROL NOTES

- THE CONTRACTOR IS REQUIRED TO SUBMIT A PROPOSED TRAFFIC CONTROL PLAN (TCP) TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING THE WORK. THE TCP SHALL INDICATE THE LOCATION OF SPACES THAT WILL BE TAKEN OUT OF SERVICE DURING EACH PHASE OF CONSTRUCTION. A DETAILED LIST OF ALL TRAFFIC CONTROL SIGNS AND BARRIERS TO BE USED SHALL BE INCLUDED IN THE TCP.
- 2. THE CONSTRUCTION SITE SHALL INCLUDE ADVANCE WARNING AND GUIDANCE SIGNS.
- 3. THE CONTRACTOR SHALL PHASE THE CONSTRUCTION ACTIVITIES TO MAINTAIN EXISTING TRAFFIC PATTERNS WITHIN THE GARAGE AND MINIMIZE DISRUPTION TO THE GARAGE PATRONS. TRAFFIC CONTROL SHALL INCLUDE ADVANCE NOTIFICATION OF PARKING STALL CLOSURES (2 DAY MINIMUM) WITH PLACARDS PLACED AT STALLS / LEVELS CLEARLY IDENTIFYING WHEN VEHICLES MUST BE MOVED BY. CITY SHALL COORDINATE VEHICLE TOWING AS NECESSARY.
- 4. THE CONTRACTOR SHALL CONDUCT THE WORK TO MINIMIZE THE NUMBER OF PARKING SPACES TAKEN OUT OF SERVICE THAT INCLUDES AREAS FOR MATERIAL STORAGE, TEMPORARY TRAFFIC PATTERNS, AND CONTRACTOR VEHICLES AND EQUIPMENT. 60 SPACES PER LEVEL, AND 120 TOTAL SPACES MAY BE CLOSED AT ONE TIME.
- 5. THE CONTRACTOR SHALL PROVIDE ADEQUATE CLOSURES WITH BARRICADES ABOVE AND BELOW THE WORK AREAS TO PROTECT PEDESTRIANS AND VEHICLES AND PREVENT THEM FROM ENTERING THE WORK ZONE.
- 6. ACCESS SHALL BE MAINTAINED TO ELEVATORS AND STAIR TOWERS AT ALL TIMES.
- 7. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
- 8. ALL WORK ASSOCIATED WITH VEHICULAR/PEDESTRIAN TRAFFIC CONTROL SHALL BE INCLUDED IN PAY ITEM 012000.02

CONCRETE NOTES:

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- 2. REFERENCE SPECIFICATION SECTION 030130, 033000 AND 321313 FOR CONCRETE MIX AND EXECUTION INFORMATION.
- CONCRETE EXPOSED TO WEATHER OR FREEZING SHALL BE AIR-ENTRAINED. ALL CONCRETE SHALL BE CONSIDERED AS CONCRETE EXPOSED TO WEATHER AND FREEZING CONDITIONS.
- CONTROLLED CONCRETE SHALL BE USED AND SHALL BE PROPORTIONED, MIXED AND PLACED UNDER SUPERVISION OF AN APPROVED CONCRETE TESTING LABORATORY.
- 5. ALL CONCRETE SURFACES SHALL BE COMPLETELY CLEANED FROM ANY DIRT, TRASH OR OTHER CONTAMINATION TO THE SURFACE BEFORE POURING NEW CONCRETE.



SECTION, DETAIL, AND ELEVATION SYMBOL IDENTIFIERS

DETAIL CALLOUT EXAMPLE



SECTION CALLOUT EXAMPLE



ELEVATION CALLOUT EXAMPLE

ABREVIATIONS

AB ARCH &	ANCHOR BOLT ARCHITECT AND	MAX MECH MFR	MAXIMUM MECHANICAL MANUFACTURER
BLDG BM	BUILDING BEAM	MIN MISC	MINIMUM MISCELLANEOUS
BOT BRG	BOTTOM BEARING	NF NO NS	NEAR FACE NUMBER NEAR SIDE
C CANT CIP	CHANNEL CANTILEVER CAST—IN—PLACE	NTS	NOT TO SCALE
CONC CJ	CONCRETE CONTROL JOINT	OC, O/C OF OPP	ON CENTER OUTSIDE FACE OPPOSITE
CL, & CLR CMU	CENTERLINE CLEAR CONCRETE MASONRY UNIT	P PL, f <u>l</u>	PIER DESIGNATION PLATE
CNJ COL CONT	CONSTRUCTION JOINT COLUMN CONTINUOUS	PAF PREFAB	POWDER ACTUATED FASTENER PREFABRICATED
CY	CUBIC YARD DIAMETER	PSF	POUNDS PER SQUARE FOOT
DIA, Ø DIM DWG	DIMENSION DRAWING	PSI PT	POUNDS PER SQUARE INCH POST TENSIONING
DT (E), EX, EXIST	DOUBLE TEE EXISTING	REINF REQ, REQD	REINFORCING STEEL REQUIRED
ÈÁ EF EL, ELEV	EACH EACH FACE ELEVATION	RD SC	ROOF DRAIN SLIP CRITICAL
EOD EQ EQUIP	EDGE OF DECK EQUAL EQUIPMENT	SIM SOG SPECS	SIMILAR SLAB-ON-GRADE SPECIFICATIONS
ES EW	EACH SIDE EACH WAY	SS STD	STAINLESS STEEL STANDARD
EXP F	EXPANSION FOOTING DESIGNATION	STIFF STL STR	STIFFENER STEEL STRAIGHT
FD FDN FF	FLOOR DRAIN FOUNDATION FINISH FLOOR	STRUCT T	STRUCTURAL
FLR FT FTG	FLOOR FOOT FOOTING	T&B TOC, T/CONC TOF, T/FTG	TOP AND BOTTOM TOP OF CONCRETE TOP OF FOOTING
G GALV	GAGE GALVANIZED	TEK	STEEL SELF-DRILLING/ SELF-TAPPING SCREW
GC HOR, HORIZ	GENERAL CONTRACTOR HORIZONTAL	TEMP T/SHELF T/SLAB	TEMPERATURE TOP OF SHELF TOP OF SLAB
HSS HT	HOLLOW STRUCTURAL HEIGHT	T/STL T/WALL TYP	TOP OF STEEL TOP OF WALL TYPICAL
IF IN	INSIDE FACE INCH	UNO	UNLESS NOTED OTHERWISE
JT	JOINT	VER, VERT	VERTICAL
K KSI	KIP (1 KIP = 1,000 LBS) KIPS PER SQUARE INCH	VIF W	VERIFY IN FIELD STRUCTURAL STEEL
L LL LB	ANGLE DOUBLE ANGLE POUND	W/ W/O	WIDE FLANGE WITH WITHOUT
LB LF	LINEAR FOOT	WP WT	WORK POINT WEIGHT
		WWF	WELDED WIRE FABRIC



PRIME, STRUCTURAL

Hoyle, Tanner (V Associates, Inc

Burlington, VT 05401

Tel: (802) 860-1331 **ARCHITECT**

125 College Street, 4th Floor

freeman | french | freemar 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C.

Electrical / Telecom Consulti 5399 Williston Road Williston, Vermont 0549 Phone 802-655-5731

MECHANICAL



CONSULTING DATE
DATE

SERVICE AN
MAY NOT 6
MED IN AN
PURPOSE THAI

MARKETPLACE (RENOVATIONS - BURLINGTON, VER

SHEET NO.

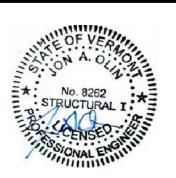
PROJECT NO. 909044

SHEET 2 OF 26

ESTIMATE OF QUANTITIES (NOT GUARANTEED)

- THE ESTIMATE OF QUANTITIES SHOWN IS FOR BIDDING PURPOSES ONLY AND HAS BEEN ESTIMATED BASED OFF OF FIELD MEASUREMENTS. WORK NOT SHOWN ON THE TABLE SHALL BE CONSIDERED INCIDENTAL TO RELEVANT ITEMS.
- 2. IN THE EVENT OF CONFLICT BETWEEN QUANTITIES SHOWN HERE AND QUANTITIES ON BID FORM, VALUES ON BID FORM SHALL GOVERN.

ITEM	ITEM DESCRIPTION	Quc	ntity
NO		Unit	Amoun:
)11000.02	MOBILIZATION/DEMOBILIZATION	LS	1
)12000.02	TRAFFIC CONTROL	LS	1
)24119.02	EXISTING CONCRETE REMOVAL	SF	290
)24119.31	SPANDREL BEAM REMOVAL/REATTACHMENT	LS	1
30130.02	ROUTE AND SEAL CONCRETE CRACK	LF	230
30130.22	HORIZONTAL CONCRETE PATCH REPAIR TYPE II	SF	880
30130.42	CATHODIC PROTECTION	EA	880
33000.21	REINFORCING STEEL	LB	50
58000.11	STAIR TREAD REATTACHMENT/ TOWER — MPG	EΑ	200
71900.02	PENETRATING SEALER/CORROSION INHIBITOR	GAL	65
76200.01	FLASHINGS AND COUNTER FLASHINGS	LF	75
76200.02	COPING REPAIR	LF	70
84413.01	CURTAIN WALL REPAIR — LOWER GLASS X2 — MPG	LS	1
88000.01	GLAZING	SF	100
99600.04	COATING INTERIOR CONCRETE MASONRY UNITS	SF	100
99600.05	COATING INTERIOR METAL SURFACE	LS	1
99600.06	COATING INTERIOR FERROUS—METAL	LS	1
99600.07	COATING INTERIOR GALVANIZED METAL	LS	1
99600.08	COATING EPOXY FLOOR COATING	SF	100
99723.01	EPOXY FLOOR COATING & BASE (EMR & ESHAFT)	LS	1
40500.01	ELEVATOR TOWER / MACHINE ROOM INCIDENTAL ITEMS (PH 1)	LS	1
42400.01	ELEVATOR CAR REPLACEMENT — MPG	LS	1
20500.11	EXISTING LEVEL 1 CHERRY ST. TRENCH DRAIN DEMOLITION	LF	8
21009.11	NEW LEVEL 1 CHERRY ST. TRENCH DRAIN	EA	1
30500.11	ELEVATOR MACHINE ROOM MECHANICAL AND PLUMBING SCOPE	LS	1
60500.11	DATA CABLING	LF	250
60500.12	DISCONNECTS	EΑ	1
60500.13	DEMOLITION	LS	1
60500.15	NEW CONTROL RELAY	EΑ	1
60500.16	HVAC CONNECTIONS	EΑ	3
60500.17	ELEVATOR CIRCUIT RECONNECTIONS	EΑ	2
60533.11	JUNC TION BOXES	EΑ	1
60533.12	RACEWAY	LF	200
60533.14	REPAIR TO EXISTING FLOOR JUNCTION BOXES	EA	2
61519.11	CONDUCTORS	LF	200
62726.11	RECEPTACLES	EΑ	1
62726.12	EQUIPMENT SWITCHES	EΑ	1
65210.11	WALL AND CEILING LIGHT FIXTURES	EΑ	6
65210.12	EMERGENC Y LIGHT FIXTURES	EA	2
65210.13	SIGNAGE LIGHTING	EA	3
23119.01	ORNAMENTAL FENCING — MPG	LS	1
21123.01	AGGREGATE BASE COURSE	СҮ	6
21313.01	CONCRETE SIDEWALK	SF	130
21313.11	CAST-IN-PLACE CONCRETE CURB	LF	35
21313.12	CAST-IN-PLACE CONCRETE PAVEMENT	SF	130
			+



PRIME, STRUCTURAL

Hoyle, Tanner
Associates, Inc.

125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860—1331



freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL
KIRICK ENGINEERING
ASSOCIATES, P.C.
Electrical / Telecom Consult



MECHANICAL

69 Union St.

Winooski, VT 05404

(802) 655-1753

(802) 655-1753

CONSULTING

		0		AN INSTRUMENT OF SE	HOYLE, TANNER. IT MA	Y FOR ANY OTHER PUR	
		BID SET	DESCRIPTION	DOCUMENT IS PREPARED AS	SHALL REMAIN THE PROPERTY OF HOYLE, TANNER. IT MA	MANNER, INCLUDING ELECTRONICALLY FOR ANY OTHER PUR THIS PROJECT, WITHOUT THE WRITTEN PERMISSION OF HOYL	
		1	REV.	THIS .	SHALL	MANN	
 OAL		ij	OWN		نن	2015	
 >H		SCALE	AS SHOWN		DATE:	JULY, 2015	
				_			•

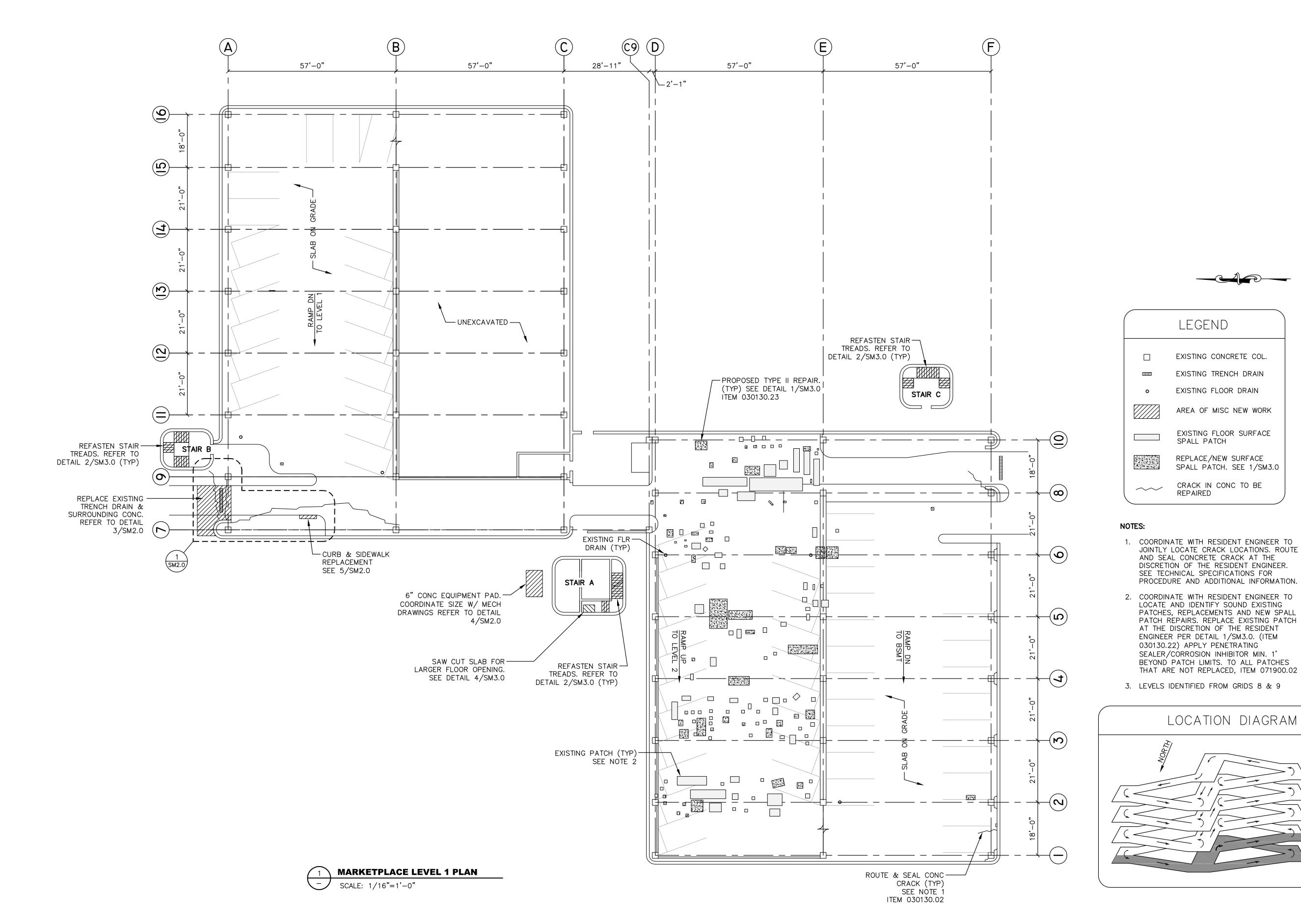
1ARKETPLACE GARAGE ENOVATIONS - PHASE I BURLINGTON, VERMONT

QUANTITIES & SCHEDULES

SHEET NO.

SM0.

PROJECT NO. 909044





PRIME, STRUCTURAL

Hoyle, Tanner
Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

> **ARCHITECT** fff

freeman | french | freeman 81 Maple Street

Burlington, VT 05401 Tel: (802) 864-6844 ELECTRICAL

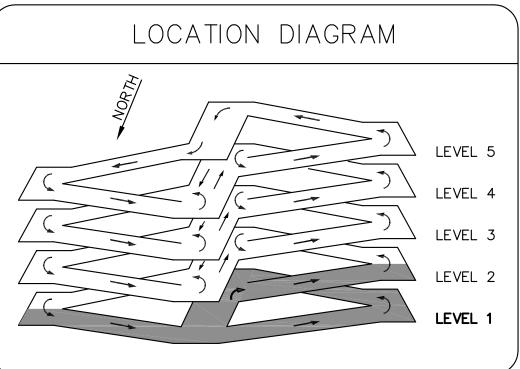
KIRICK ENGINEERING ASSOCIATES, P.C. Electrical / Telecom Consultin

5399 Williston Road Williston, Vermont 0549 Phone 802-655-5731

MECHANICAL 69 Union St.

Winooski, VT 05404 (802) 655-1753 CONSULTING

- 1. COORDINATE WITH RESIDENT ENGINEER TO JOINTLY LOCATE CRACK LOCATIONS. ROUTE AND SEAL CONCRETE CRACK AT THE DISCRETION OF THE RESIDENT ENGINEER. SEE TECHNICAL SPECIFICATIONS FOR PROCEDURE AND ADDITIONAL INFORMATION.
- LOCATE AND IDENTIFY SOUND EXISTING PATCHES, REPLACEMENTS AND NEW SPALL PATCH REPAIRS. REPLACE EXISTING PATCH AT THE DISCRETION OF THE RESIDENT ENGINEER PER DETAIL 1/SM3.0. (ITEM SEALER/CORROSION INHIBITOR MIN. 1' BEYOND PATCH LIMITS. TO ALL PATCHES
- 3. LEVELS IDENTIFIED FROM GRIDS 8 & 9



SHEET NO.

MARKETPLACE G RENOVATIONS -BURLINGTON, VER

STRUCTURAL

PROJECT NO. 909044 SHEET 4 OF 26

LEGEND

EXISTING CONCRETE COL.

EXISTING TRENCH DRAIN

EXISTING FLOOR DRAIN

AREA OF MISC NEW WORK

EXISTING FLOOR SURFACE SPALL PATCH

REPLACE/NEW SURFACE SPALL PATCH. SEE 1/SM3.0

CRACK IN CONC TO BE REPAIRED

AND SEAL CONCRETE CRACK AT THE DISCRETION OF THE RESIDENT ENGINEER.

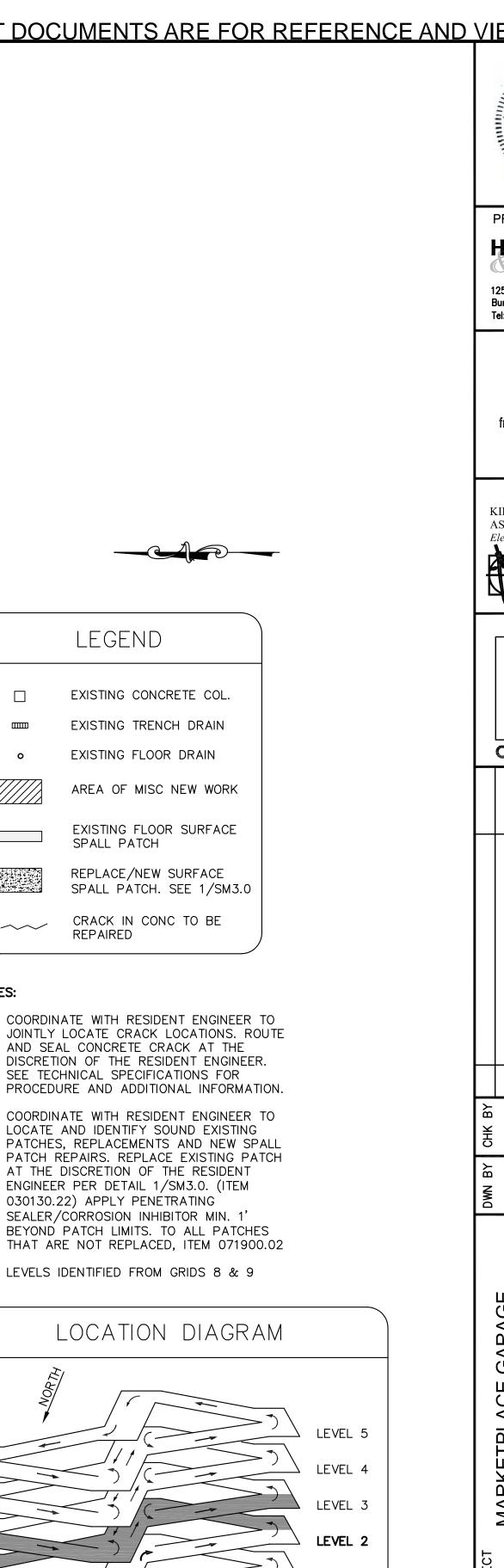
2. COORDINATE WITH RESIDENT ENGINEER TO

LOCATE AND IDENTIFY SOUND EXISTING PATCHES, REPLACEMENTS AND NEW SPALL PATCH REPAIRS. REPLACE EXISTING PATCH AT THE DISCRETION OF THE RESIDENT ENGINEER PER DETAIL 1/SM3.0. (ITEM

SEALER/CORROSION INHIBITOR MIN. 1' BEYOND PATCH LIMITS. TO ALL PATCHES

030130.22) APPLY PENÉTRATING

SEE TECHNICAL SPECIFICATIONS FOR PROCEDURE AND ADDITIONAL INFORMATION.





PRIME, STRUCTURAL

Hoyle, Tanner
Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

> ARCHITECT fff

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING

ASSOCIATES, P.C. Electrical / Telecom Consultin 5399 Williston Road Williston, Vermont 05495 Phone 802-655-5731

> MECHANICAL 69 Union St.

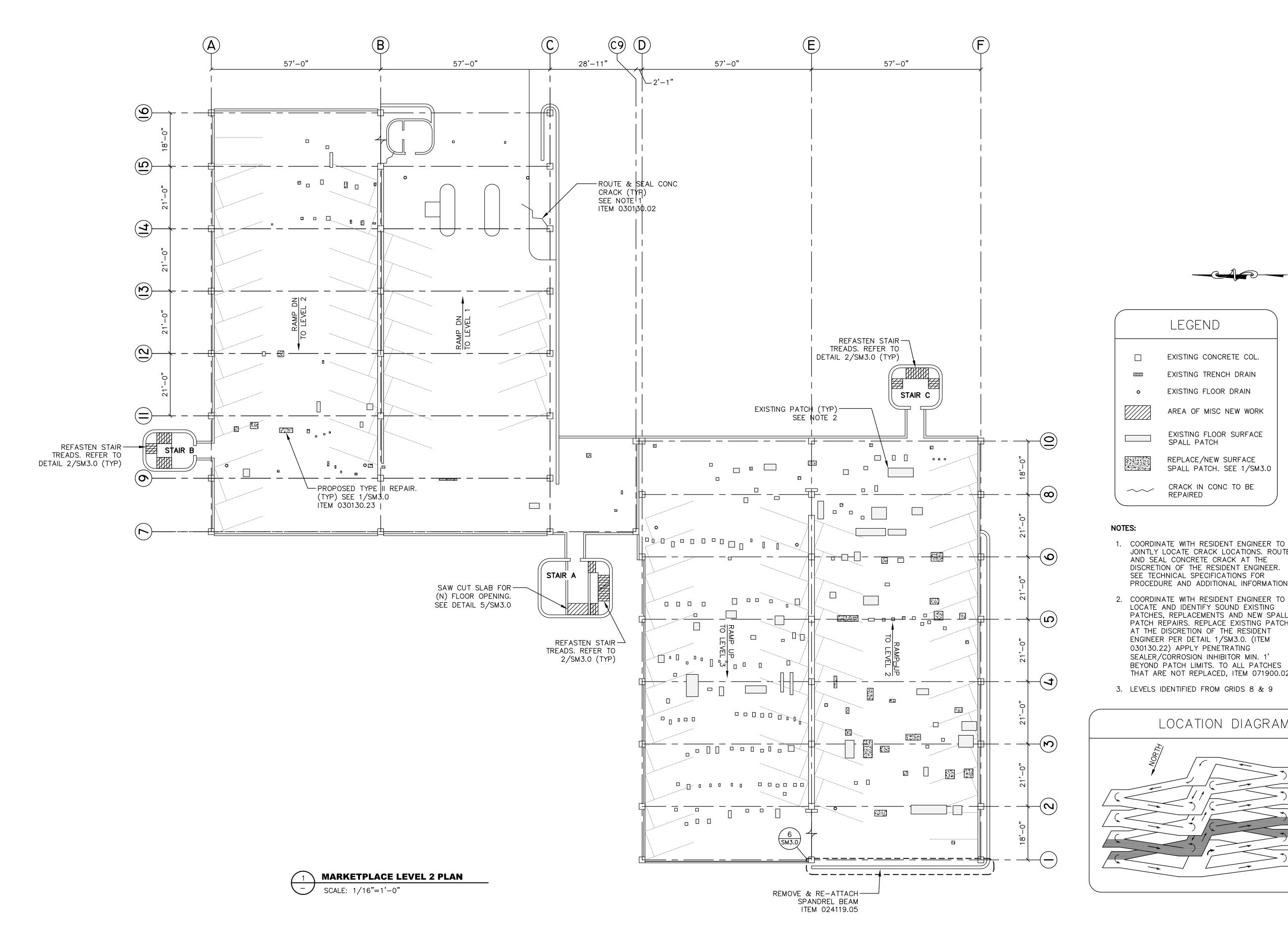
Winooski, VT 05404 (802) 655-1753 CONSULTING

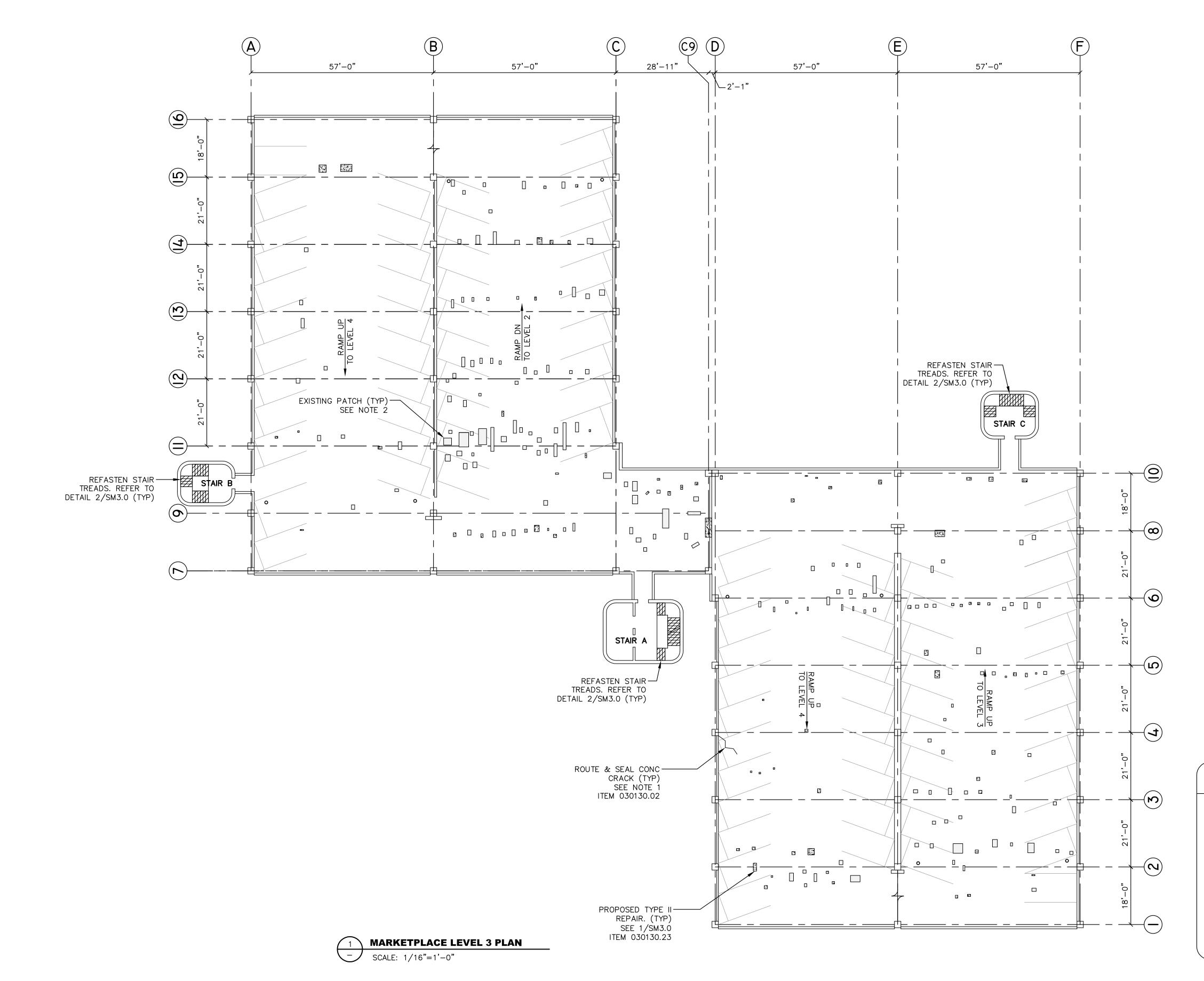
2 STRUCTURAL

MARKETPLACE G RENOVATIONS - I BURLINGTON, VER

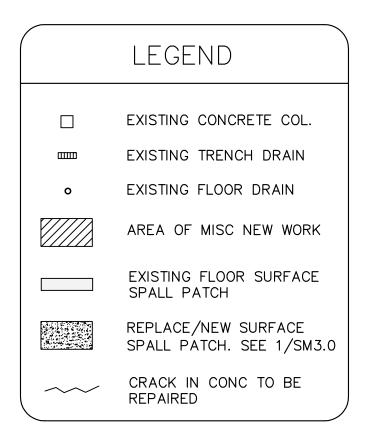
SHEET NO.

PROJECT NO. 909044 SHEET 5 OF 26



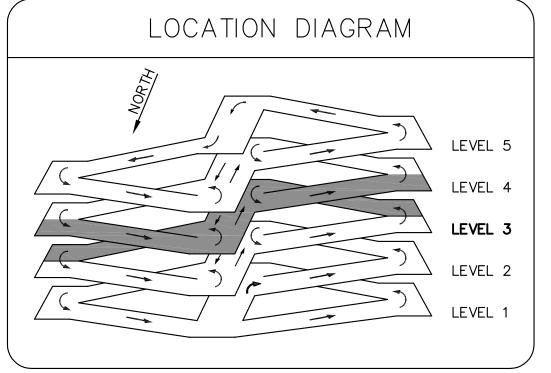






NOTES:

- 1. COORDINATE WITH RESIDENT ENGINEER TO JOINTLY LOCATE CRACK LOCATIONS. ROUTE AND SEAL CONCRETE CRACK AT THE DISCRETION OF THE RESIDENT ENGINEER. SEE TECHNICAL SPECIFICATIONS FOR PROCEDURE AND ADDITIONAL INFORMATION.
- 2. COORDINATE WITH RESIDENT ENGINEER TO LOCATE AND IDENTIFY SOUND EXISTING PATCHES, REPLACEMENTS AND NEW SPALL PATCH REPAIRS. REPLACE EXISTING PATCH AT THE DISCRETION OF THE RESIDENT ENGINEER PER DETAIL 1/SM3.0. (ITEM 030130.22) APPLY PENETRATING SEALER/CORROSION INHIBITOR MIN. 1' BEYOND PATCH LIMITS. TO ALL PATCHES THAT ARE NOT REPLACED, ITEM 071900.02
- 3. LEVELS IDENTIFIED FROM GRIDS 8 & 9





PRIME, STRUCTURAL

Hoyle, Tanner
Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

> **ARCHITECT** fff

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C. Electrical / Telecom Consultin

5399 Williston Road Williston, Vermont 05495 Phone 802-655-5731

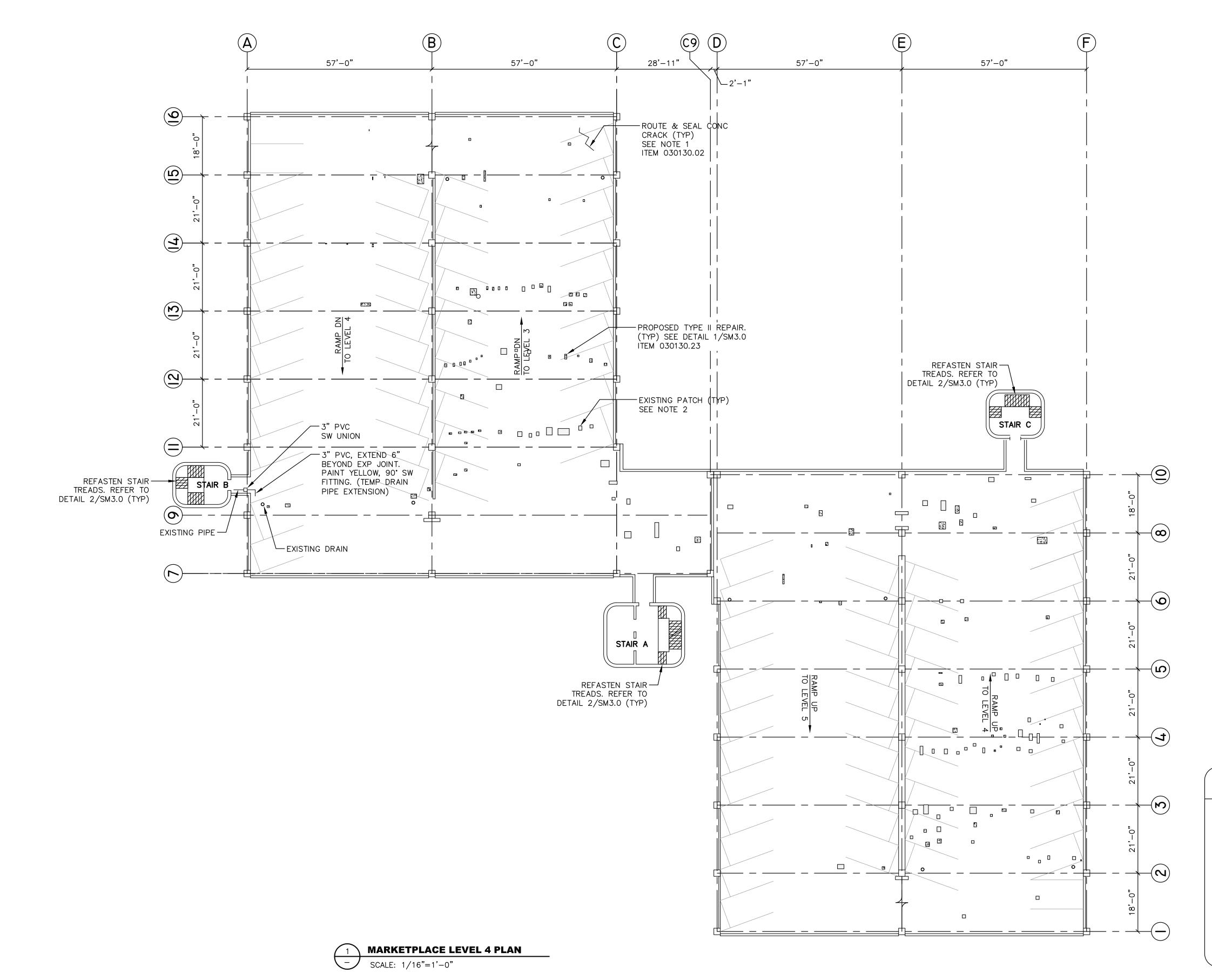
MECHANICAL 69 Union St. Winooski, VT 05404 (802) 655-1753

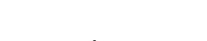
CONSULTING

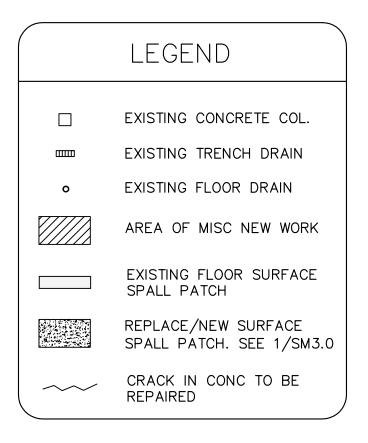
MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

SHEET NO.

PROJECT NO. 909044 SHEET 6 OF 26

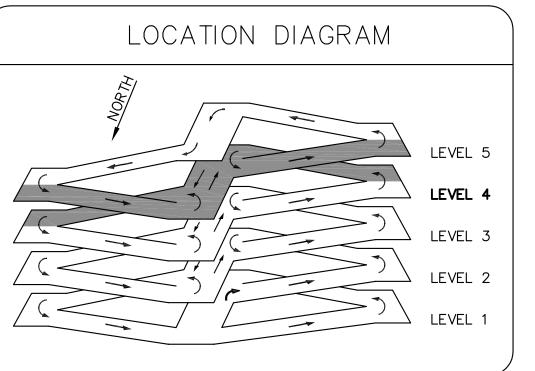






NOTES:

- 1. COORDINATE WITH RESIDENT ENGINEER TO JOINTLY LOCATE CRACK LOCATIONS. ROUTE AND SEAL CONCRETE CRACK AT THE DISCRETION OF THE RESIDENT ENGINEER. SEE TECHNICAL SPECIFICATIONS FOR PROCEDURE AND ADDITIONAL INFORMATION.
- 2. COORDINATE WITH RESIDENT ENGINEER TO LOCATE AND IDENTIFY SOUND EXISTING PATCHES, REPLACEMENTS AND NEW SPALL PATCH REPAIRS. REPLACE EXISTING PATCH AT THE DISCRETION OF THE RESIDENT ENGINEER PER DETAIL 1/SM3.0. (ITEM 030130.22) APPLY PENETRATING SEALER/CORROSION INHIBITOR MIN. 1' BEYOND PATCH LIMITS. TO ALL PATCHES THAT ARE NOT REPLACED, ITEM 071900.02
- 3. LEVELS IDENTIFIED FROM GRIDS 8 & 9





PRIME, STRUCTURAL

Hoyle, Tanner Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

> **ARCHITECT A**

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING

ASSOCIATES, P.C. Electrical / Telecom Consultin 5399 Williston Road Williston, Vermont 05495 Phone 802-655-5731

MECHANICAL 69 Union St. Winooski, VT 05404 (802) 655-1753

CONSULTING

MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

SHEET NO.

PROJECT NO. 909044 SHEET 7 OF 26

LEGEND

EXISTING CONCRETE COL.

EXISTING TRENCH DRAIN

EXISTING FLOOR DRAIN

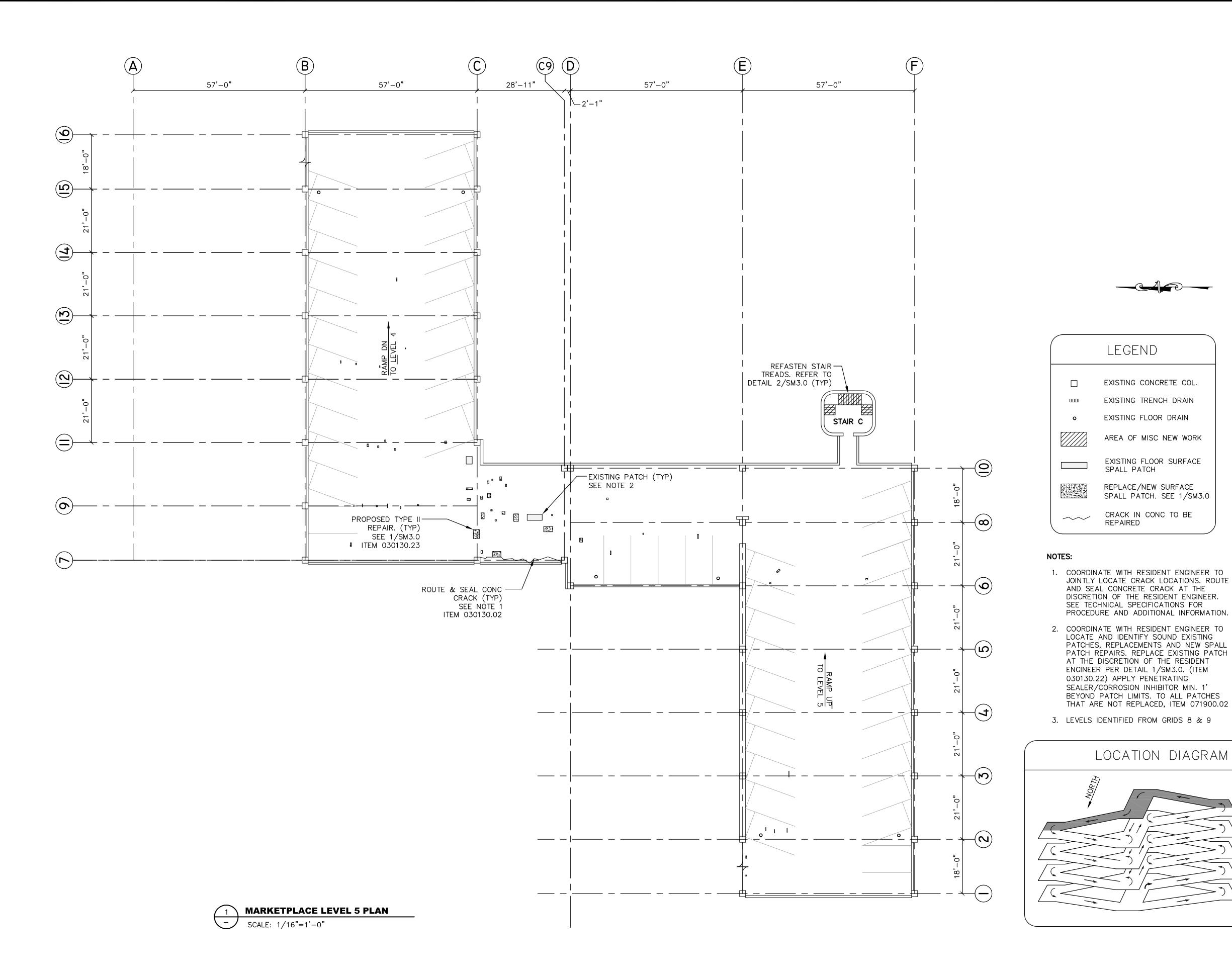
AREA OF MISC NEW WORK

EXISTING FLOOR SURFACE SPALL PATCH

REPLACE/NEW SURFACE SPALL PATCH. SEE 1/SM3.0

LOCATION DIAGRAM

CRACK IN CONC TO BE REPAIRED





PRIME, STRUCTURAL

Hoyle, Tanner Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

> ARCHITECT Sfif

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING

ASSOCIATES, P.C. Electrical / Telecom Consultin 5399 Williston Road Suite 103 Williston, Vermont 05495 Phone 802-655-5731

MECHANICAL

69 Union St. Winooski, VT 05404 (802) 655-1753

CC	10	1 <u>5</u>	JL7	AND AND ANY
		07/07/15	DATE	SERVICE AN MAY NOT EED IN AN URPOSE THA
		BID SET	DESCRIPTION	THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF HOYLE, TANNER. IT MAY NOT BE USED, REPRODUCED, DISSEMINATED OR TRANSFERRED IN ANY MANNER, INCLUDING ELECTRONICALLY FOR ANY OTHER PURPOSE THAN THIS PROJECT, WITHOUT THE WRITTEN PERMISSION OF HOYLE, TANNER.
		-	REV.	THIS SHAL USED MANI THIS
OAI.		ıii	NWC	:: :015

MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

LEVEL 5

LEVEL 4

LEVEL 3

LEVEL 2

SHEET NO.

PROJECT NO. 909044 SHEET 8 OF 26

(IN FEET)

1 inch = 10 ft.

1 inch = 10 ft.

BITUMINOUS PARKING

-TRENCH DRAIN MULCH ЕМН 4" DRAIN PK NAIL= PARKING RIM = 100.3RIM=104.53 -BOLLARD (TYP) RIM = 99.33COVER *104.72* SIGN RAISED CONC ☐ ISLAND STAMPED BITUMINOUS SIDEWALK 04.2 CONC CURB ^104.3 GATE ARM -**∿** DH SET= 100.00 S O TIP-DOWN CONC SPALLING -RAMP**GARAGE** CONC RAMP – GARAGE FLOOR COLUMN RAISED CONC (TYP) 104.2 CONC CURB ISLAND BOLLARD (TYP)-CONC

STAMPED BITUMINOUS SIDEWALK GARAGE WALL CONC OUTLINE SIDEWALK INTEGRAL CONC CURB BRICK WALL CATCH BASIN RIM=101.92 GRAPHIC SCALE

EXISTING CONDITIONS SITE PLAN SCALE: 1" = 10'

-REMOVE & REPLACE REMOVE & REPLACE 9LF OF-60SF OF CONC SIDEWALK ARAGE INTEGRAL CONC CURBING ITEM 321313.10 ITEM 321313.11 GARAGE WALL OUTLINE \ - REMOVE & REPLACE REMOVE EXISTING TRENCH-5SF OF CONC SIDEWALK DRAIN (ITEM 220500.11) AND ITEM 321313.10 INSTALL NEW ZURN Z882-HDS 10" DRAIN TRENCH DRAIN -REMOVE & REPLACE 3LF OF RIM = 100.01RIM = 100.30INTEGRAL CONC CURBING CONC (SEE MECH. DWGS FOR ITEM 321313.11 SIDEWALK ADDITIONAL INFORMATION) 100.9 TBM (PROTECT) -TRENCH DRAIN MULCH EMH4" DRAIN PK NAIL= PARKING RIM = 100.3RIM = 104.53RIM = 99.33COVER 104.72 SIGN RAISED CONC ISLAND STAMPED BITUMINOUS SIDEWALK. STRE 100.4 104.2 CONC CURB ∆ DH SET= PROPOSED "ENTRANCE CLOSED" (PROTECT) 100.00 6**%**· TIP-DOWN LIMITS OF -SIGN. COORDINATE WITH OWNER CONC CONC SPALLING -CONC. SAWCUT RAMPGARAGE CHERRY CONC RAMP (TYP)FLOOR _ GARAGE 100.8 COLUMN (TYP) RAISED CONC 104.2 CONC CURB ISLAND CONC BOLLARD TAMPED BITUMINOUS SIDEWALK! GARAGE WALL CONC OUTLINE SIDEWALK INTEGRAL CONC CURB REMOVE & REPLACE 8LF OF -CATCH BASIN INTEGRAL CONC CURBING REMOVE & REPLACE 130SF OF CONC-RIM = 101.92ITEM 321313.11 PAVING. ITEM 321313.12. PITCH ALL GRAPHIC SCALE NEW CONC TO THE DRAIN REMOVE & REPLACE 12SF -OF CONC SIDEWALK REMOVE & REPLACE 13LF OF -INTEGRAL CONC CURBING ITEM 321313.10 /BITUMINOUS PARKING / ITEM 321313.11 REMOVE & REPLACE 50SF-NOTE: CONCRETE REMOVAL (IN FEET)

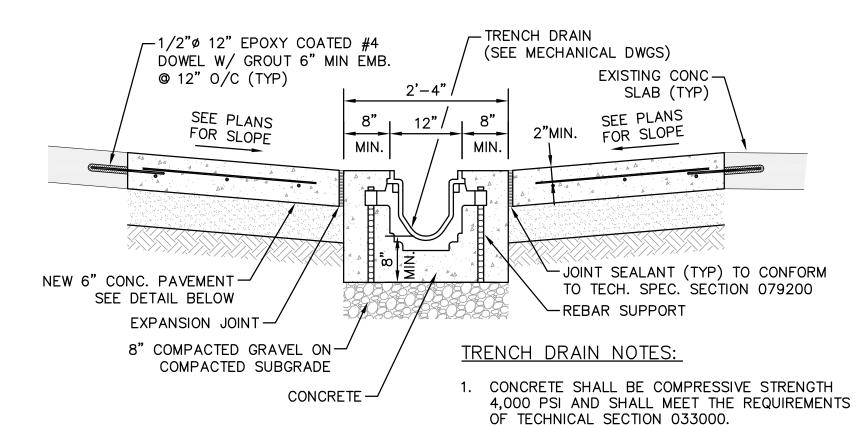
PAID UNDER ITEM 024119.02

OF CONC SIDEWALK

ITEM 321313.10

PROPOSED SITE PLAN SCALE: 1" = 10'

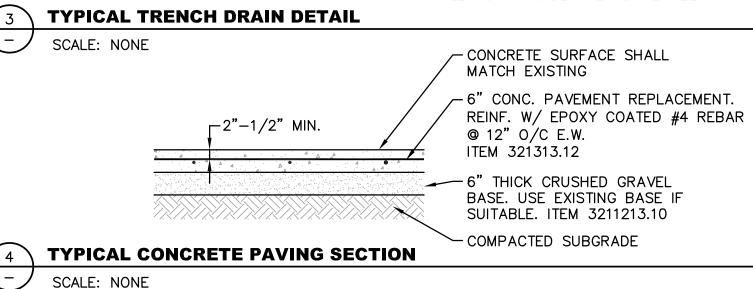
- DRAWING AND OR SPECIFICATION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, POLICE DETAILS, ETC., FOR TRAFFIC AND PEDESTRIAN CONTROL AND SITE SAFETY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL WORK IS DONE IN ACCORDANCE WITH OSHA REQUIREMENTS. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS WITHIN THE LIMIT OF WORK
- WHEN PREPARING THE EXISTING SITE FOR THE PROPOSED DEVELOPMENT, ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL GOVERNING AGENCIES.
- 7. GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
- PROVIDE UNIFORM SLOPE BETWEEN CONTOURS AND/OR SPOT ELEVATIONS.
- FINISH PAVEMENT SURFACES SHALL BE FREE OF LOW SPOTS AND PONDING AREAS.
- SPOT GRADES SHOWN ARE PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
- ALL NEW CONCRETE WORK SHALL MEET AND MATCH THE ELEVATIONS OF THE EXISTING CONCRETE TO PROVIDE A SMOOTH CONTINUOUS SURFACE.
- 12. ALL NEW CONCRETE CURBING SHALL BE PAINTED YELLOW TO MATCH THE EXISTING.

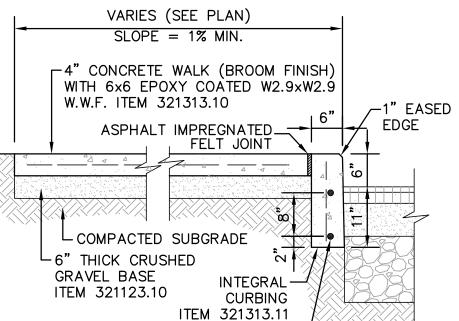


2. TRENCH DRAIN SHALL BE DESIGNED FOR H-20 LOADING.

3. TRENCH DRAIN GRATE SHALL MEET AMERICANS WITH DISABILITIES (ADA) REGULATIONS.

4. ALL WORK INCIDENTAL TO ITEM 221009.11.





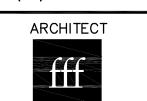
CONCRETE SIDEWALK NOTES:

- WHERE CONCRETE WALKWAYS ABUT STRUCTURES USE 1/2" PREFORMED JOINT FILLER AND 1" DEEP MASTIC JOINT SEALER.
- 2. SEE PLANS FOR SIDEWALK WIDTHS.
- CONTRACTOR TO VERIFY THICKNESS OF EXISTING BASE MATERIAL.
- 4. CONTRACTOR SHALL APPLY AN APPROVED CURING COMPOUND PER MANUFACTURER'S INSTRUCTIONS.

2-#4'S CONTINUOUS TYPICAL CONCRETE SIDEWALK & INTEGRAL CURB SECTION SCALE: NONE

REINFORCE WITH-





freeman | french | freeman 81 Maple Street Burlington, VT 05401

Tel: (802) 864-6844 ELECTRICAL



Williston, Vermont 0549 Phone 802-655-5731 MECHANICAL

Winooski, VT 05404 (802) 655-175

CONSULTING

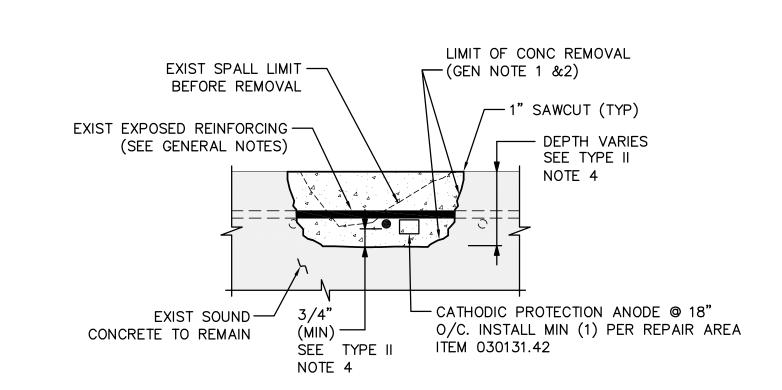
MARKETPLACE (RENOVATIONS -BURLINGTON, VER

SHEET NO.

SM2.0

PROJECT NO. 909044

SHEET 9 OF 26



TYPE II HORIZONTAL CONCRETE REPAIR DETAIL

SCALE: NTS ALL WORK SHOWN EXCEPT FOR CATHODIC PROTECTION SHALL BE INCIDENTAL TO PAY ITEM 030130.23

NOTE:

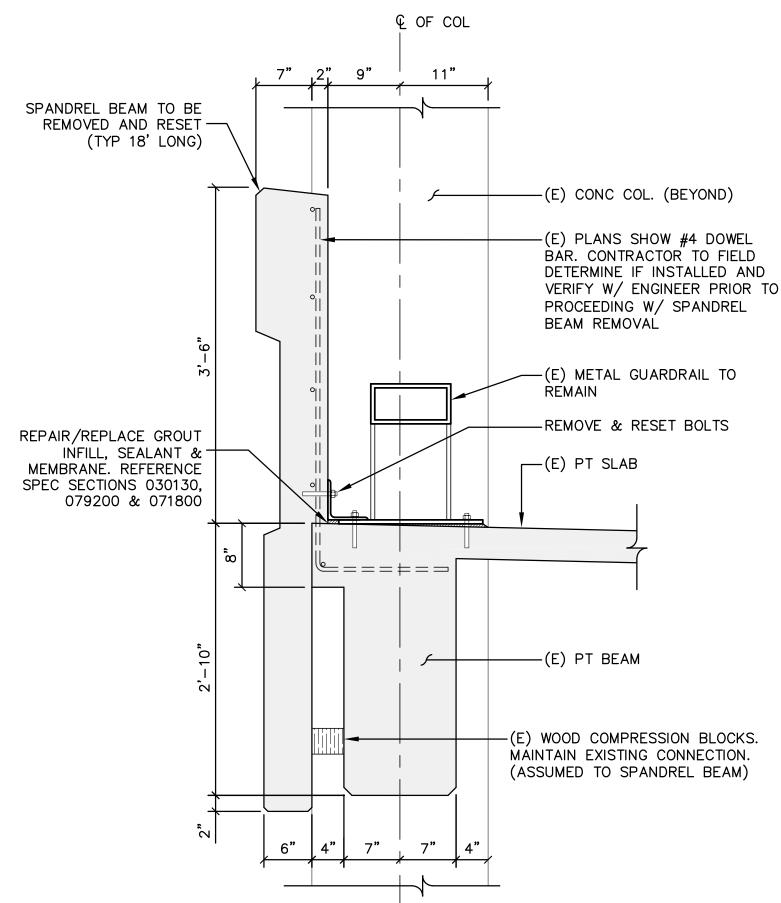
CONTRACTOR SHALL LOCATE AND TAKE MEASURES TO NOT DAMAGE PT STRANDS LOCATED IN REPAIR AREAS. UNDERCUTTING PT STRANDS SHALL NOT BE PERMITTED, REPAIR DEPTH RESTRICTED IN SUCH LOCATIONS.

CONCRETE REPAIR NOTES - GENERAL

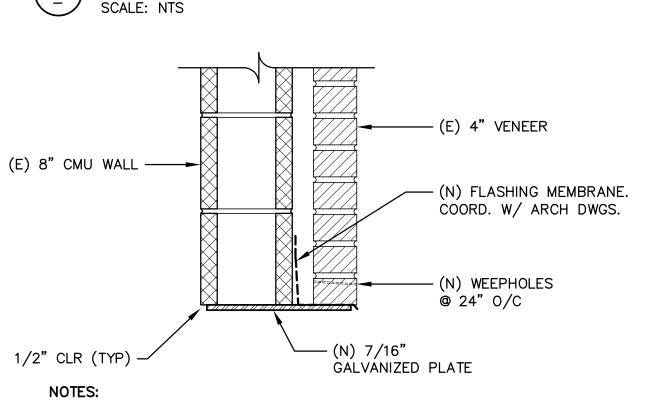
- 1. THE CONTRACTOR AND ENGINEER SHALL JOINTLY SOUND REPAIR AREAS BY USE OF SOUNDING HAMMERS TO DETERMINE AND MARK REPAIR LIMITS.
- 2. PREPARE SPALLED AREA BY REMOVING ALL DETERIORATED CONCRETE TO A MINIMUM DEPTH AS SHOWN ON CONCRETE REPAIR DETAILS BY SQUARE CUTTING REPAIR AREA. FEATHERED REMOVAL EDGES WILL NOT BE PERMITTED.
- 3. USE OF CHIPPING HAMMERS HEAVIER THAN NOMINAL 15 POUND CLASS ARE NOT BE PERMITTED. CONTRACTOR SHALL NOT REMOVE CONCRETE BEYOND A TOTAL DEPTH OF 6" WITHOUT APPROVAL FROM ENGINEER.
- 4. AT CONTRACTOR'S OPTION, HYDRODEMOLITION MAY BE USED IN LIEU OF CHIPPING HAMMERS. SEE TECHNICAL SPECIFICATION SECTION 024120 FOR MORE INFORMATION. NO ADJUSTMENT IN BID UNIT PRICE SHALL BE MADE FOR CONTRACTOR'S CHOICE OF CONCRETE REMOVAL.
- 5. AFTER CONCRETE REMOVAL, THE REPAIR SURFACE SHALL BE THOROUGHLY CLEANED OF INJURIOUS RUST, CONCRETE, DIRT, GREASE, OR ANY OTHER BOND-INHIBITING MATERIALS.
- 6. PATCH REPAIR AREA WITH AN APPROVED REPAIR MATERIAL. THE CONCRETE REPAIR MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.
- 7. CONTACT STRUCTURAL ENGINEER TO REVIEW EXISTING CONDITION FOR APPROVAL BEFORE INSTALLING PATCH MATERIAL.
- 8. APPLY SCRUB COAT IN ACCORDANCE WITH 030130 SPECIFICATIONS AND GROUT MANUFACTURER'S RECOMMENDATIONS.
- 9. ALL SURFACES TO BE REPAIRED SHALL BE IN A SATURATED SURFACE DRY (SSD) CONDITIONS WITH NO DRIPPING WATER ON THE SURFACE - I.E. SOAK SURFACES WITH CLEAN WATER FOR 15 MINUTES MINIMUM.
- 10. SEE TECHNICAL SPECIFICATION SECTION 030130 FOR ADDITIONAL REQUIREMENTS.

TYPE II CONCRETE REPAIR NOTES

- 1. WHERE REINFORCING STEEL IS EXPOSED, CONDUCT OIL-FREE ABRASIVE CLEANING. (TIGHTLY BONDED LIGHT RUST WHICH CANNOT BE REMOVED WITH A WIRE BRUSH IS ACCEPTABLE)
- 2. PROVIDE SUPPLEMENTAL REINFORCING BARS AT AREAS WHERE STEEL HAS EXHIBITED SECTION LOSS AS DIRECTED BY THE STRUCTURAL ENGINEER.
- 3. AFTER CONCRETE REPAIR MATERIAL HAS CURED, APPLY AN APPROVED CORROSION INHIBITING IMPREGNATION COATING OVER THE REPAIR AREA WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.
- 4. CONTRACTOR SHALL NOT REMOVE CONCRETE BEYOND A TOTAL DEPTH OF 6" WITHOUT APPROVAL FROM ENGINEER.







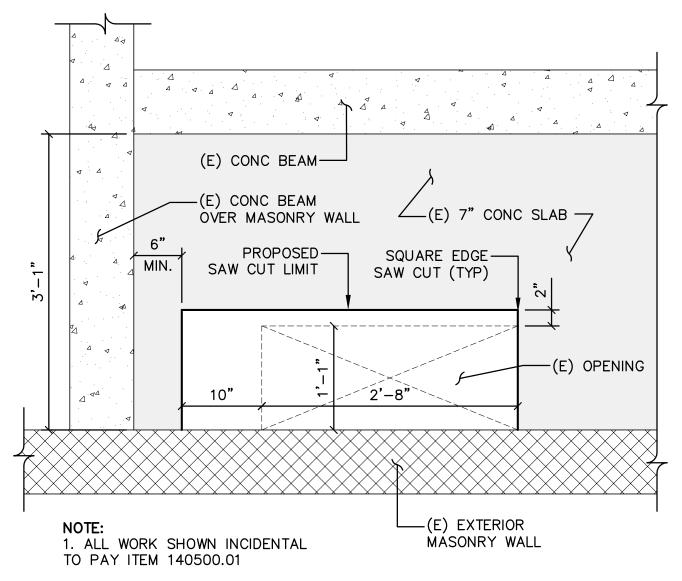
TYPICAL STAIR TREAD FASTENING DETAIL

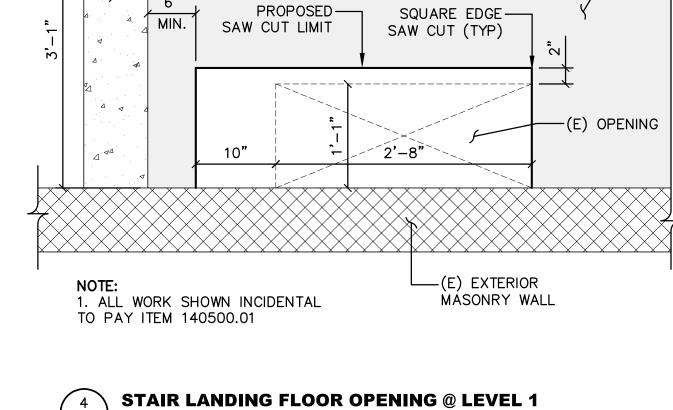
- 1. PROVIDE 6" MINIMUM BEARING AT EACH END.
- 2. LINTEL SHALL BE HOT DIPPED GALVANIZED.
- 3. STEEL TO BE ASTM A36

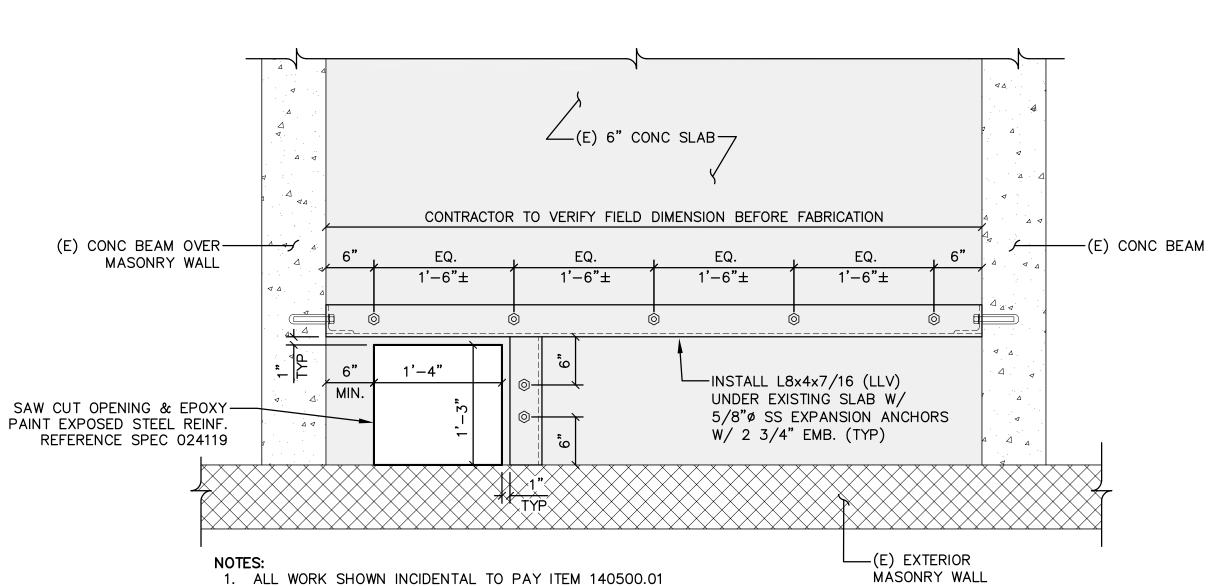
EXISTING SOUND CONCRETE.

4. MAX OPENING SPAN FOR THIS DETAIL IS 2'-0". ONLY TO BE USED IN LOCATIONS AS IDENTIFIED ON THE PLANS.









2. ALL CONNECTIONS (STL TO STL & STL TO CONC) SHALL BE DESIGNED BY FABRICATOR W/ A (2) BOLT MINIMUM FOR EACH

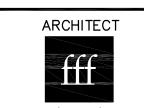
> STAIR LANDING FLOOR OPENING @ LEVEL 2 SCALE: NTS



PRIME, STRUCTURAL Hoyle, Tanner

Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401

Tel: (802) 860-1331



freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C.

Electrical / Telecom Consultin 5399 Williston Road Williston, Vermont 0549 Phone 802-655-5731

MECHANICAL 69 Union St. Winooski, VT 05404 (802) 655-1753

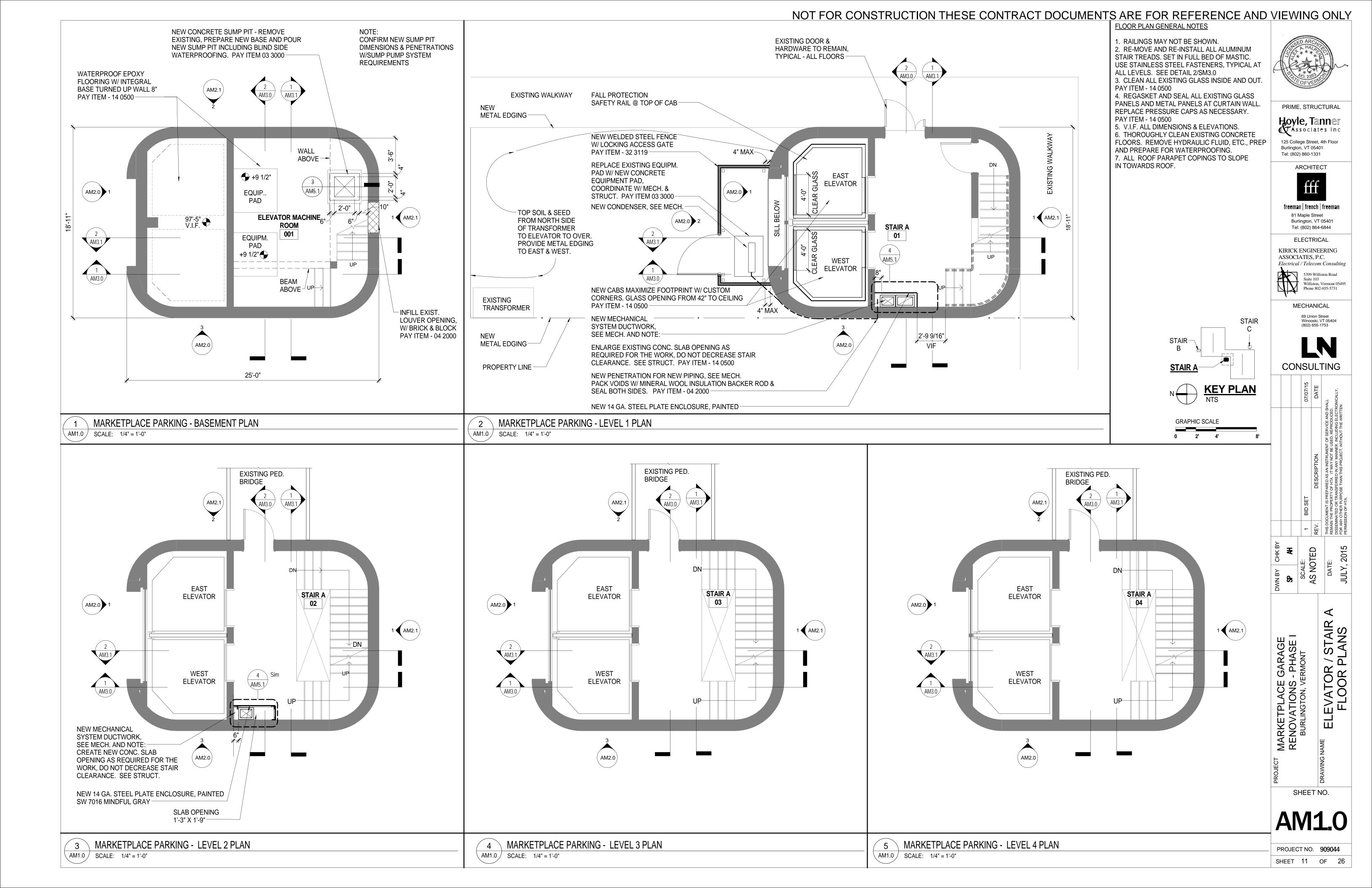
CONSULTING

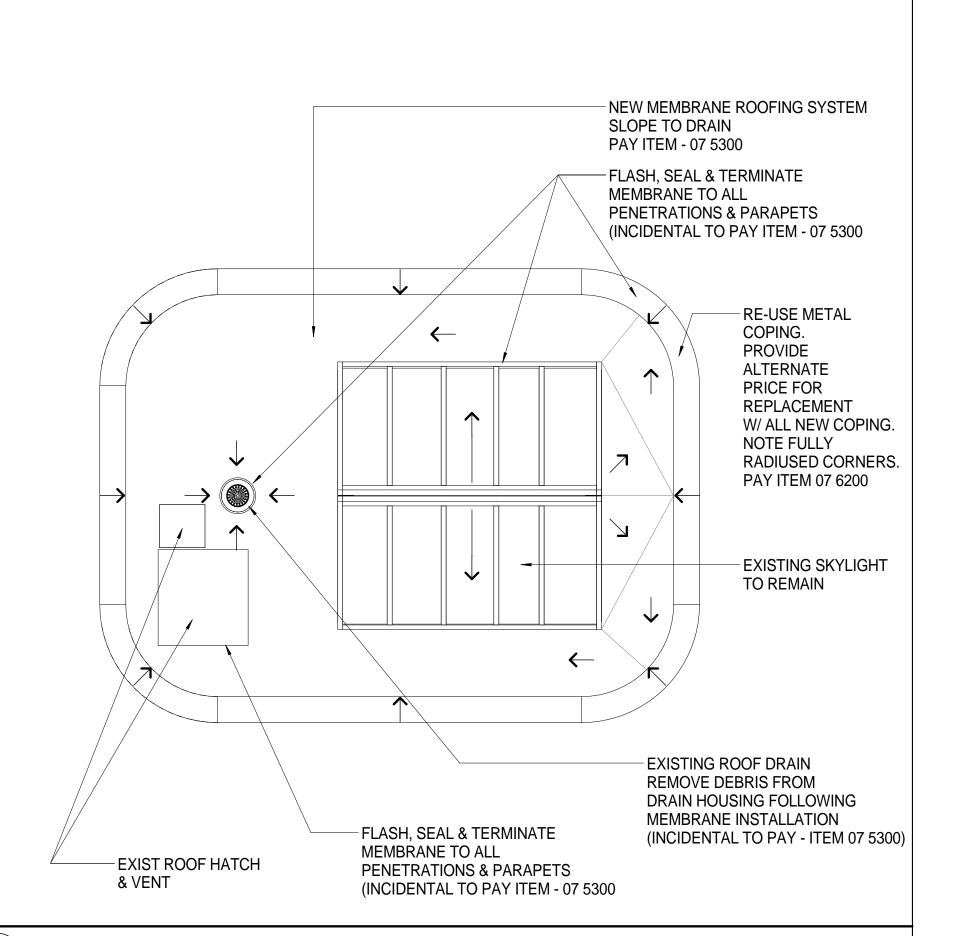
AS AN OF HO'S ALLY F.

MARKETPLACE (RENOVATIONS -

SHEET NO.

PROJECT NO. 909044 SHEET 10 OF 26





FLOOR PLAN GENERAL NOTES

1. RAILINGS MAY NOT BE SHOWN. 2. RE-MOVE AND RE-INSTALL ALL ALUMINUM STAIR TREADS. SET IN FULL BED OF MASTIC. USE STAINLESS STEEL FASTENERS, TYPICAL AT ALL LEVELS. SEE DETAIL 2/SM3.0 3. CLEAN ALL EXISTING GLASS INSIDE AND OUT. PAY ITEM - 14 0500 4. REGASKET AND SEAL ALL EXISTING GLASS PANELS AND METAL PANELS AT CURTAIN WALL.

REPLACE PRESSURE CAPS AS NECESSARY. PAY ITEM - 14 0500 5. V.I.F. ALL DIMENSIONS & ELEVATIONS.

6. THOROUGHLY CLEAN EXISTING CONCRETE FLOORS. REMOVE HYDRAULIC FLUID, ETC., PREP AND PREPARE FOR WATERPROOFING. 7. ALL ROOF PARAPET COPINGS TO SLOPE IN TOWARDS ROOF.

STAIR-

125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331 ARCHITECT

PRIME, STRUCTURAL

Hoyle, Tanner Associates Inc

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C. Electrical / Telecom Consulting Suite 103 Williston, Vermont 05495 Phone 802-655-5731

MECHANICAL

69 Union Street Winooski, VT 05404 (802) 655-1753

CONSULTING

STAIR

KEY PLAN NTS

GRAPHIC SCALE

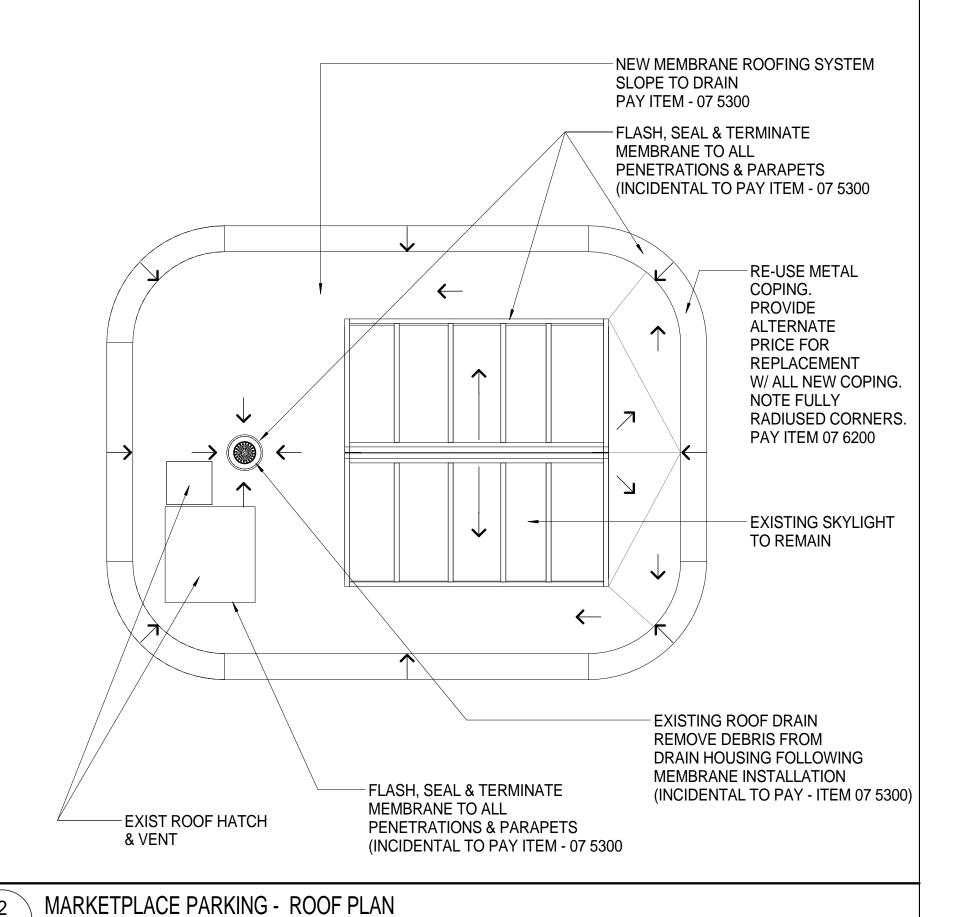
0 2' 4'

SCALE: AS NOTED

ELEVATOR / STAIR FLOOR PLANS

SHEET NO.

PROJECT NO. **909044**



EXISTING PED.

STAIR A

05

1 **(**AM2.1)

AM1.1 SCALE: 1/4" = 1'-0"

EAST

ELEVATOR

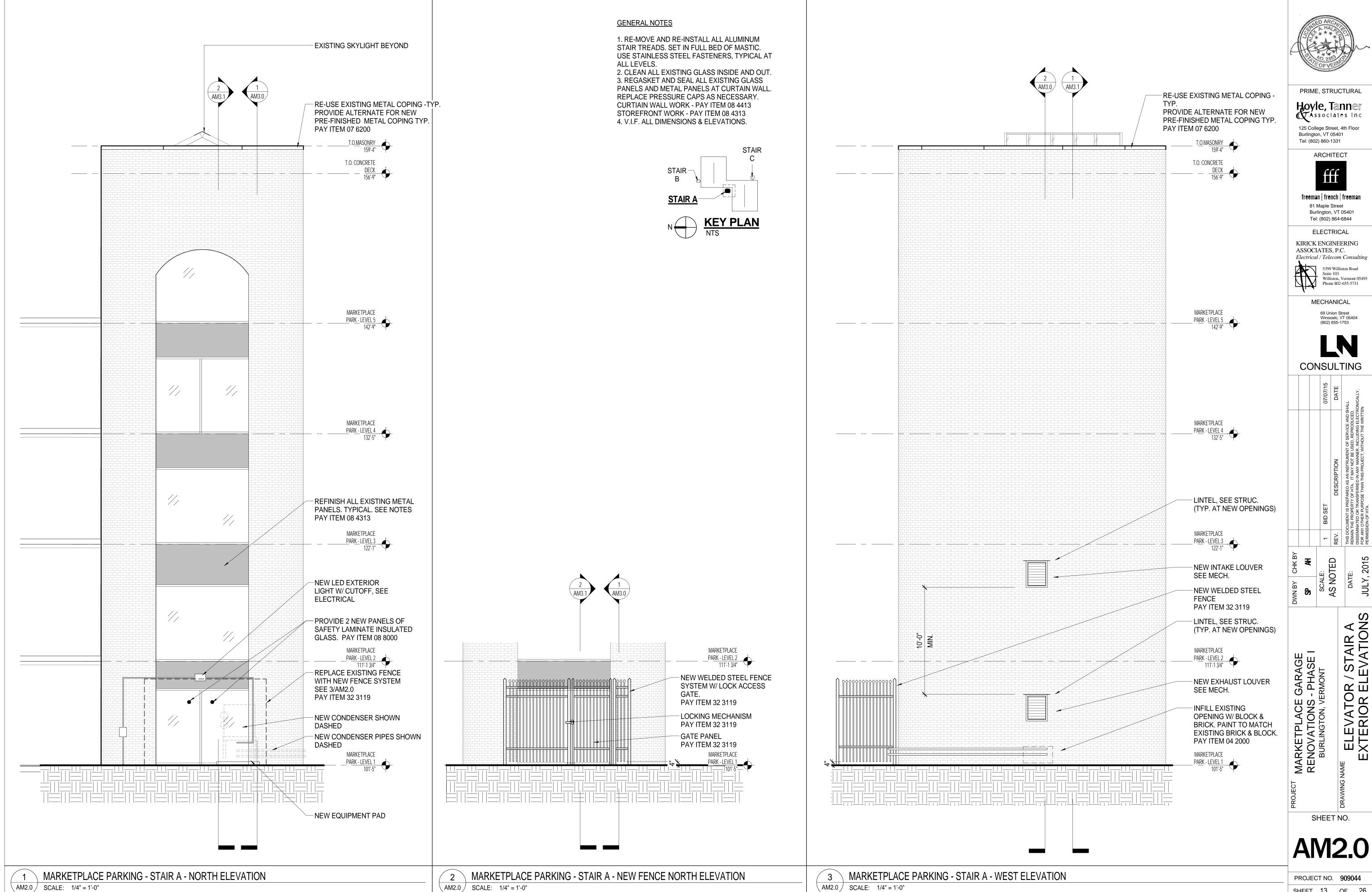
WEST **ELEVATOR**

MARKETPLACE PARKING - LEVEL 5 PLAN

AM2.0 1

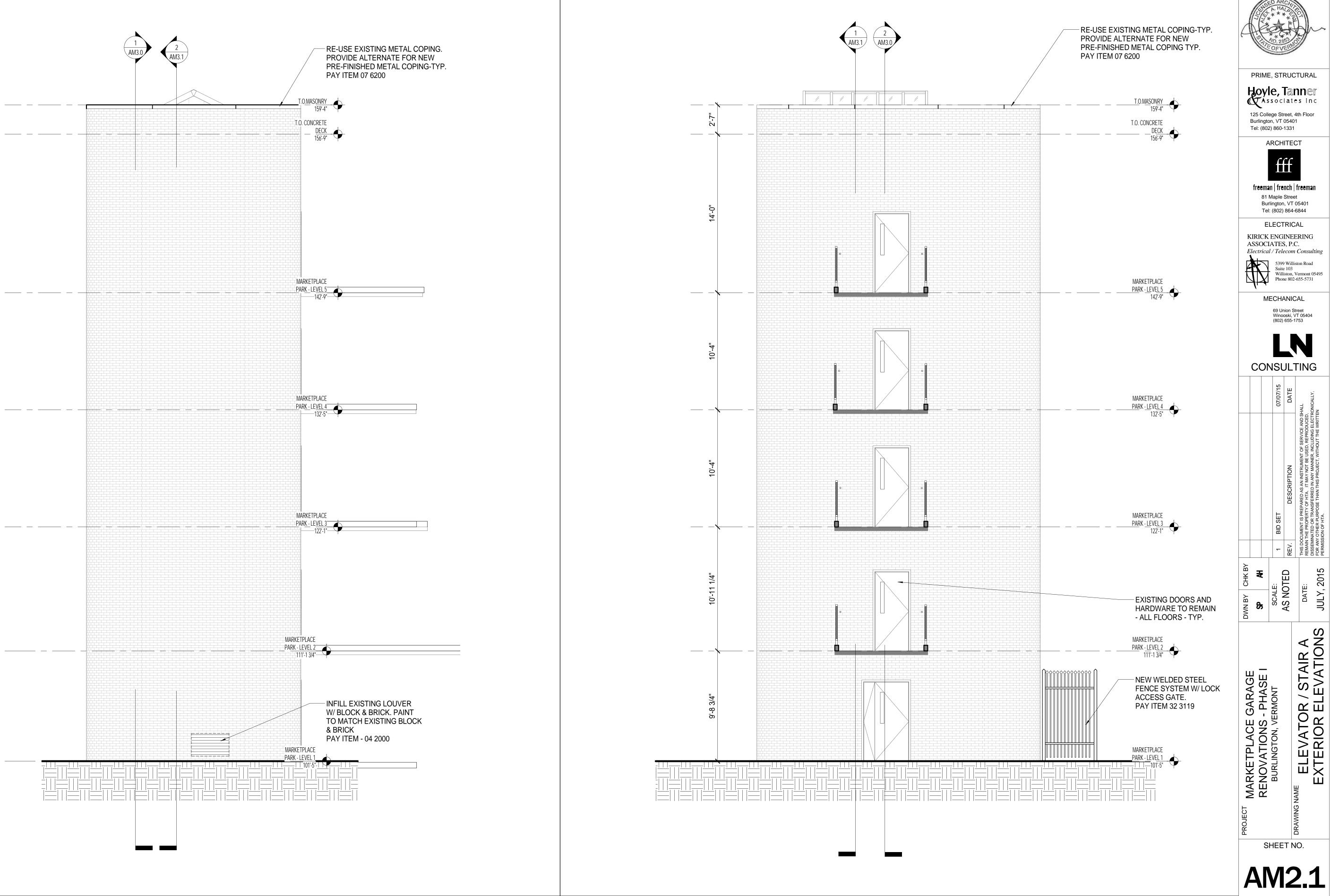
2 AM3.1

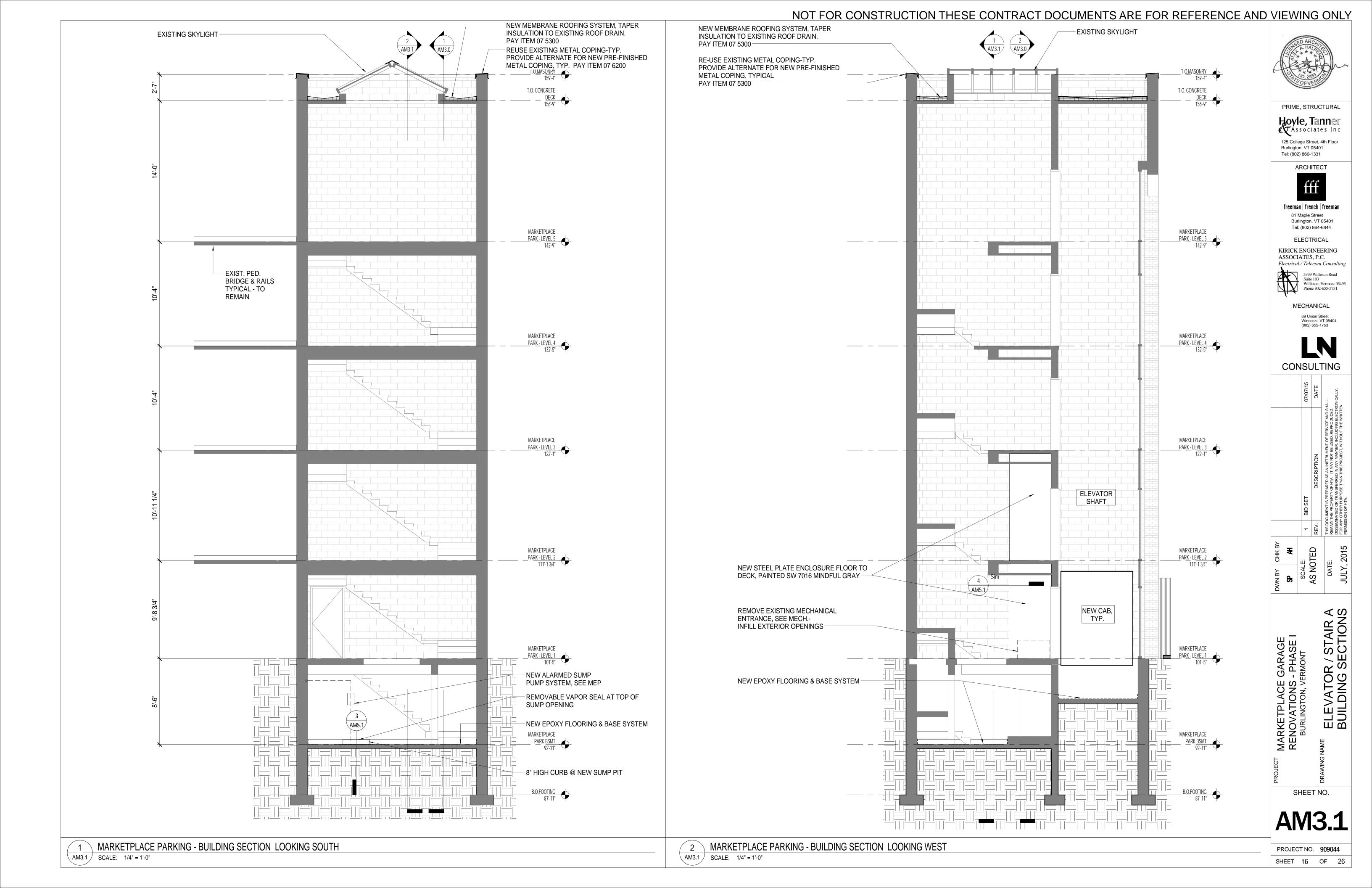
AM1.1 SCALE: 1/4" = 1'-0"

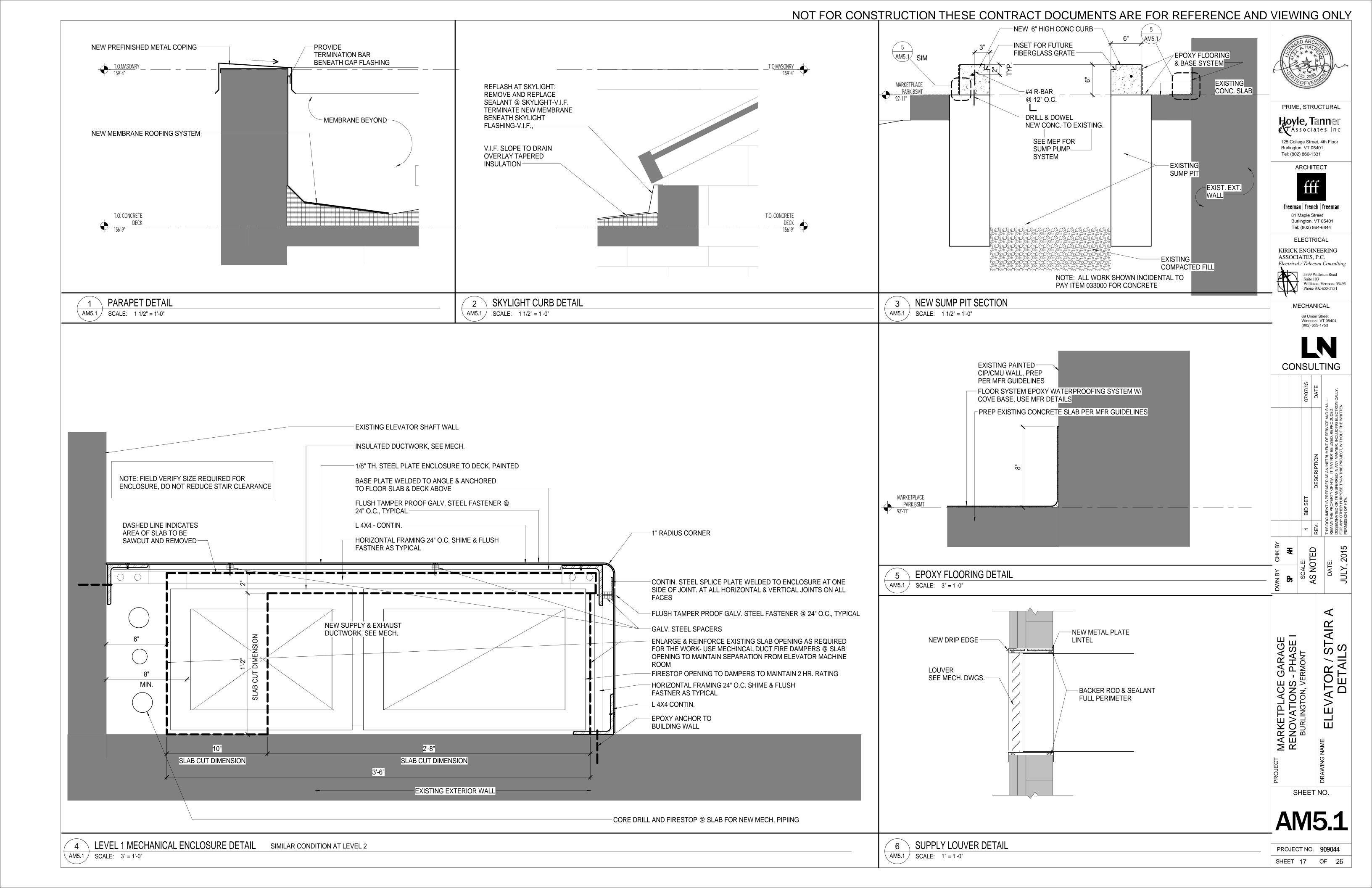


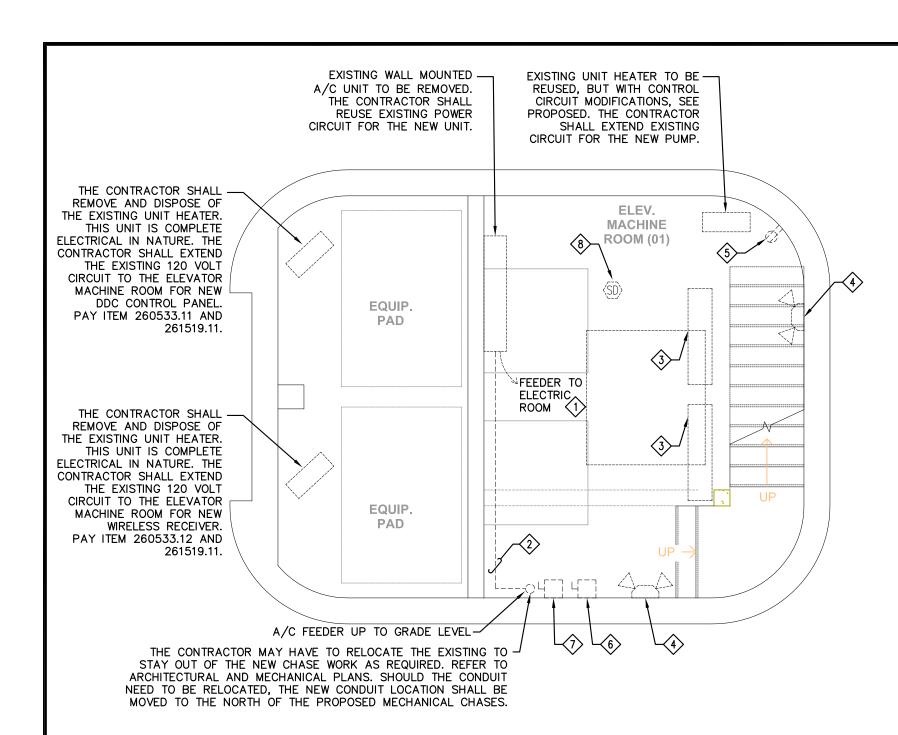
AM2.0 | SCALE: 1/4" = 1'-0"

SHEET 13 OF 26









AND SHALL BE REUSED.

SCALE: 1/4" = 1'-0"

MANUFACTURER &

MODEL NO.

ELM2 LED OR ENGINEER

APPROVED EQUIVALENT

- THE EXISTING POWER FEED FOR REMOVED A/C UNIT SHOULD BE PROPERLY SIZED FOR REPLACEMENT UNIT,
- EXISTING CONDUIT SHALL BE REUSED FOR NEW SPLIT SYSTEM. REPLACE CONDUCTORS TO MATCH NEW SYSTEM COMPONENT IF REQUIRED.
- EXISTING LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW.
- 4. EXISTING EMERGENCY LIGHT TO BE REMOVED AND REPLACED WITH NEW. PAY ITEM 265210.12.
- 5. EXISTING RECEPTACLE TO BE REPLACED WITH NEW.
- 6. EXISTING ELEVATOR DISCONNECT TO REMAIN AND BE USED FOR NEW ELEVATOR MOTOR POWER FEED.
- 7. EXISTING ELEVATOR DISCONNECT TO BE REMOVED AND REPLACED WITH NEW. PAY ITEM 260500.12.
- 8. ALL EXISTING FIRE ALARM SYSTEM DEVICES SHALL

- INSTALL NEW SUMP PUMP PROVIDED BY MECHANICAL CONTRACTOR. REUSE AND EXTEND EXISTING CIRCUIT FROM REMOVED UNIT HEATER. PROVIDE LOCAL MOTOR SENTINAL SWITCH IF DISCONNECT NOT INCLUDED WITH PUMP. PAY ITEM 230500.11.
 - FAN. USE (2)#12, (1)#12G, 3/4" SCHEDULE 40 PVC. PAY ITEMS 265210.12 AND 261519.11. 4. INSTALL NEW EXHAUST FAN AND VFD PROVIDED BY

MECHANICAL CONTRACTOR.

3. EXTEND RECEPTACLE CIRCUIT TO POWER NEW SUPPLY

GFCI DUPLEX RECEPTACLE. CONNECT TO EXISTING

RECEPTACLE CIRCUIT. PAY ITEM 26272.11.

NEW INDOOR WALL MOUNTED HEAT PUMP.

CONTRACTOR SHALL EXTEND THE PROPOSED

CIRCUIT TO UNIT OU-1 TO THIS HEAT PUMP.

GENERAL NOTE THIS PLAN VIEW

TO THE ALTERNATE LOCATION.

THE ELEVATOR CAMERAS WITH THE

THE CONTRACTOR SHALL VERIFY THE WIRELESS

RECEIVER LOCATION THAT IS ASSOCIATED WITH

MANUFACTURER. ALTERNATE INSTALLATION

LOCATION INSIDE THE ELEVATOR SHAFT WITH ASSOCIATED CONDUIT, WIRE AND CABLE TO

EXTEND BOTH THE POWER AND DATA SIGNALS

REFER TO OTHER NOTES ASSOCIATED WITH

THE WIRELESS RECEIVER THIS DETAIL.

THIS UNIT SHALL BE POWERED FROM THE

ASSOCIATED OUTDOOR UNIT OU-1. THE

- 5. INSTALL NEW SPLIT UNIT HEAT PUMP AND REMOTE CONDENSER ON GRADE LEVEL. EXISTING CONDUIT (AND WIRE) CAN BE REUSED FOR NEW INSTALLATION AS APPROPRIATE, OR REPLACE WITH NEW AS NEEDED.
- 6. EXISTING SOURCE POWER FEEDER SHALL BE REUSED FOR NEW SYSTEM. REPLACEMENT UNIT IS OR SIMILAR SIZE AS REMOVED AND CIRCUIT SHOULD BE SIZED TO MATCH. VERIFY IN FIELD AND NOTIFY ENGINEER IF SIZING DOES NOT MATCH
- 7. RE-CIRCUIT NEW ELEVATOR MOTOR TO EXISTING
- DISCONNECT AND FEEDER. 8. FURNISH AND INSTALL NEW 200 AMP FUSED

DISCONNECT WITH AUXILIARY CONTACTS FOR ELEVATOR

⟨NEYED NOTES PROPOSED ELECTRICAL PLAN: FURNISH AND INSTALL NEW 20AMP COMMERCIAL GRADE BATTERY CONTROL CIRCUIT. RE-WIRE TO EXISTING

ITEM 260500.11.

NEW DDC CONTROL PANEL (VERIFY EXACT LOCATION) PROVIDED -

BY MECHANICAL CONTRACTOR, PROVIDE 120 VOLT POWER FROM

REMOVED UNIT HEATER CIRCUIT IN ELEVATOR MACHINE SHAFT.

USE (2)#12, (1)#12G, 3/4"DIAMETER PVC CONDUIT.

EQUIP

PAD

REMOVED UNIT

FFFDFR TO ELECTRIC

NEW SUPPLY FAN. FAN-

<4> CIRCUIT. EQUIPMENT

SHALL BE POWERED

LOAD IS 5.8 AMPS.

FAN SHALL OPERATE

BY A 120V, 1ø

ON A VARIABLE

FREQUENCY DRIVE.

- USE AND EXTEND

REMOVED UNIT

HEATER CIRCUIT.

PAD

ROOM

HEATER CIRCUIT.

- USE AND EXTEND

1(HP-1)

9. FURNISH AND INSTALL (1) 4-PAIR CAT6 DATA CABLE, AND ALL TERMINATION HARDWARE. THE CABLE SHALL ORIGINATE AT THE LEVEL 2 OFFICE LOCATED AT THE WINOOSKI STREET ENTRANCE. INSTALL CABLE IN A SHARED 1" DIAMETER PVC CONDUIT FROM THE OFFICE TO THE ELEVATOR MACHINE ROOM. THE CONDUIT SHALL PROVIDE PATHWAY FOR BOTH THE DDC DATA

FEEDER AND CONTROL CIRCUITS AS REQUIRED.

SURVEILLANCE CAMERAS PAY ITEM 260533 AND 261519.

RECEIVER ASSOCIATED WITH THE ELEVATOR CAMERAS. COORDINATE ROUTE WITH ENGINEER PRIOR TO INSTALLATION. APPROXIMATE ROUTE IS SHOWN ON THESE PLANS. COORDINATE TERMINATIONS AT EACH END WITH OWNER AND MECHANICAL. REFER TO SHEET EM2.1 FOR CABLE REQUIRED DATA CABLE TYPE.

DROP AND THE DATA DROP FOR THE WIRELESS

- PROVIDE 120 VOLT POWER FROM REMOVED UNIT HEATER CIRCUIT IN ELEVATOR

MACHINE SHAFT. USE (2)#12, (1)#12G, 3/4"DIAMETER PVC CONDUIT. THIS IS

ASSOCIATED WITH THE NEW WIRELESS RECEIVER FOR THE ELEVATOR VIDEO

10. FURNISH AND INSTALL (1) 4-PAIR CAT6 DATA CABLE, AND ALL TERMINATION HARDWARE. THE CABLE SHALL ORIGINATE AT THE LEVEL 2 OFFICE LOCATED AT THE WINOOSKI STREET ENTRANCE. INSTALL CABLE IN A SHARED 1" DIAMETER PVC CONDUIT FROM THE OFFICE TO THE ELEVATOR MACHINE ROOM. THE CONDUIT SHALL PROVIDE PATHWAY FOR BOTH THE WIRELESS. RECEIVER DATA DROP AND THE DATA DROP FOR THE DDC. COORDINATE ROUTE WITH ENGINEER PRIOR TO INSTALLATION. APPROXIMATE ROUTE IS SHOWN ON THESE PLANS. COORDINATE TERMINATIONS AT EACH END WITH OWNER AND ELEVATOR INSTALLER. REFER TO

SHEET EM2.1 FOR REQUIRED DATA CABLE TYPE. PAY

11. THE CONTRACTOR SHALL FURNISH AND INSTALL A 1" DIAMETER SCHEDULE 40 PVC CONDUIT ORIGINATING AT THE PROPOSED PULL BOX AND ROUTING TO THE OFFICE LOCATED ON LEVEL 2, AT THE WINOOSKI STREET ENTRANCE. APPROXIMATE ROUTE IS SHOWN ON THESE PLANS, COORDINATE ROUTE WITH ENGINEER. REFER TO SHEET EM1.1, EM2.0 AND EM2.1 FOR PATHWAY CONTINUATION. ALTHOUGH SWEEPS ARE SHOWN IN THE CONDUIT ROUTE, THE CONTRACTOR SHALL ROUTE THE CONDUIT IN AS STRAIGHT A MANNER AS POSSIBLE FROM THE PULL BOX TO THE SWEEP UP INTO THE FIRST FLOOR. PAY ITEM

- NEW WIRELESS RECEIVER THAT IS ASSOCIATED WITH THE VIDEO

LOCATION) WITH ELEVATOR INSTALLER, WIRELESS RECEIVER AND

CONTRACTOR.

TO EXISTING UNIT

HEATER CIRCUIT

TO EXISTING POWER SOURCE. INTERCEPT

CIRCUIT FEED FOR NEW RELAY INSTALL.

FURNISH AND INSTALL NEW 15 AMP RATED RELAY FOR BUILDING

MANAGEMENT CONTROL. VERIFY COIL

VOLTAGE REQUIREMENT WITH CONTROLS

PROVIDE POWER FOR NEW DUPLEX

REQUIREMENTS ARE 120V. 1ø.

PACKAGED SUMP PUMP SYSTEM. POWER

EQUIPMENT LOAD IS 9.7 AMPS. PROVIDE

MOTOR SENTINAL SWITCH AND EXTEND

EXISTING CIRCUIT AS REQUIRED WITH

(2)#12, (1)#12G, 3/4" SEALTITE.

TYPICAL MECHANICAL SYSTEM

UNIT DESIGNATION, REFER TO

MECHANICAL PLANS.

SURVEILLANCE CAMERAS THAT SHALL BE LOCATED IN EACH

ELEVATOR. ONE CAMERA PER ELEVATOR. (VERIFY EXACT

CAMERAS BY OTHERS.

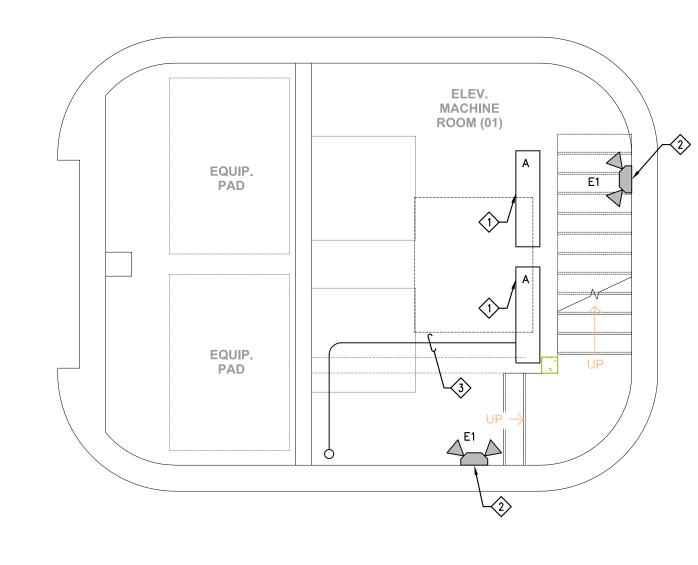
ELEV.

MACHINE

ROOM (01)

l WIR I

- 12. FURNISH AND INSTALL A 24"(L)X(8"(W)X6"(D) PVC PULL BOX. MOUNT BOX TO DECK ABOVE. PAY ITEM
- 13. THE CONDUIT PATHWAY SHALL SWEEP UP TO THE FIRST FLOOR. THE CONTRACTOR SHALL CORE DECKING AS REQUIRED. COORDINATE CORING WITH STRUCTURAL ENGINEERING. REFER TO PLAN EM1.1 FOR PATHWAY CONTINUATION.
- 14. FURNISH AND INSTALL A 1" DIAMETER SCHEDULE 40 PVC CONDUIT FROM THE PULL BOX TO THE DDC PANEL. PAY ITEM 260533.11.
- 15. FURNISH AND INSTALL A 1" DIAMETER SCHEDULE 40 PVC CONDUIT FROM THE PULL BOX TO THE WIRELESS RECEIVER. PAY ITEM 260533.11.



3. EXTEND LIGHTING CIRCUIT FROM THE LIGHT FIXTURE

SHOWN ON THE BASEMENT LEVEL TO THE PROPOSED

EXTERIOR LIGHT FIXTURE AT STAIR B. FURNISH AND

INSTALL (2)#12, (1)#12G, 3/4" SCHEDULE 40 PVC

CONDUIT, REFER TO PROPOSED LIGHTING PLAN ON

SHEET EM1.1 FOR PATHWAY CONTINUATION AND

260533.12 AND 261519.11

PROPOSED LIGHTING PLAN (ELEV. MACH. RM.)

STAIR

PROPOSED LIGHT FIXTURE LOCATION. PAY ITEMS

KEYED NOTES PROPOSED LIGHTING THIS SHEET:

- FURNISH AND INSTALL NEW CHAIN HUNG WORKLIGHT FIXTURE, RE-CIRCUIT TO ORIGINAL SWITCH LOOP. REFER TO LUMINAIRE SCHEDULE. PAY ITEM 265210.11.
- 2. FURNISH AND INSTALL NEW SELF-CONTAINED EMERGENCY BATTERY PACK, RE-CIRCUIT TO EXISTING BRANCH CIRCUIT. REFER TO LUMINAIRE SCHEDULE. MOUNT FIXTURE 6'-8" CLEAR FROM FINISHED WALKING SURFACE. PAY ITEM 265210.12.



PRIME, STRUCTURAL

freeman | french | freeman

81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING

ASSOCIATES, P.C. Electrical / Telecom Consultin 5399 Williston Road Suite 103

MECHANICAL 69 Union St.

Williston, Vermont 0549

Phone 802-655-5731

Winooski, VT 05404 (802) 655-1753

CONSULTING

	70//0	DAT	MENT IS PREPARED AS AN INSTRUMENT OF SERVICE AIN THE PROPERTY OF HOYLE, TANNER. IT MAY NOT PRODUCED, DISSEMINATED OR TRANSFERRED IN
) SET	DESCRIPTION	MENT IS PREPARED AS , IAIN THE PROPERTY OF PRODUCED, DISSEMINATE

MARKETPLACE (RENOVATIONS -BURLINGTON, VER

SHEET NO.

ENT LEVEL DEMOLITION & ELECTRICAL/LIGHTING PL

PROJECT NO. 909044 SHEET **18** OF **26**

PROPOSED ELECTRICAL PLAN (ELEV. MACH. RM.) SCALE: 1/4" = 1'-0"

- WITH ARCHITECT PRIOR TO SUBMITTALS AND ORDERING.
- B. ALL LED LAMPING SHALL BE 3500K, 82+ CRI, FOR ALL LIGHT FIXTURES, UNLESS OTHERWISE NOTED BY OWNER.
- MOUNTING REQUIREMENTS WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ORDERING AND INSTALLATION.
- SWITCHING REQUIREMENTS SHOWN ON PLANS, PRIOR TO BIDDING AND ORDERING.
- E. FOR ALL FIXTURES TO COMPLY WITH EFFICIENCY VERMONT'S APPROVED REBATE LIST; IE DLC LISTED OR ENERGY STAR RATINGS.



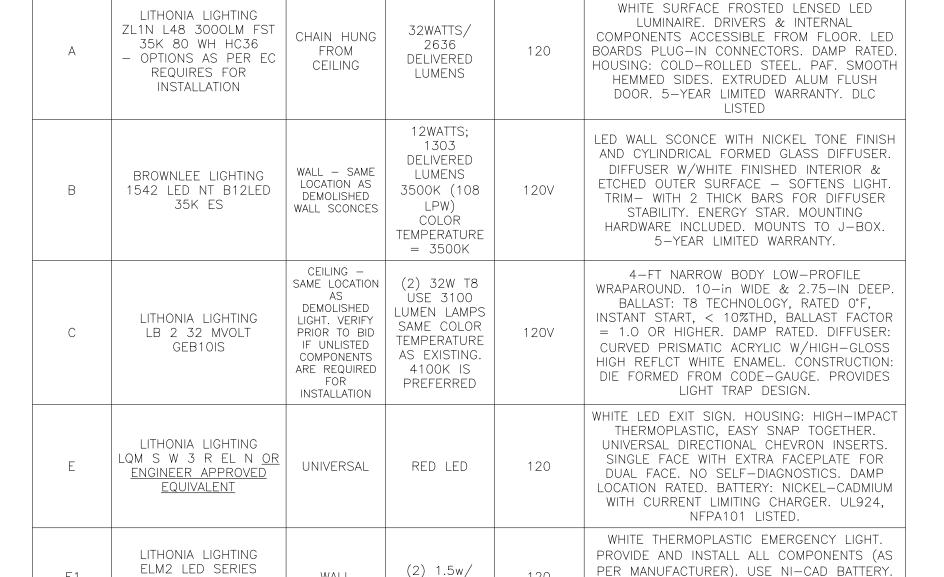


- A. COORDINATE ALL FIXTURE FINISHES, COLORS AND TRIM STYLES
- C. ELECTRICAL CONTRACTOR SHALL VERIFY CEILING TYPES AND
- D. ELECTRICAL CONTRACTOR SHALL ENSURE CATALOG NUMBERS MATCH DESCRIPTIONS SHOWN IN THIS SCHEDULE, AS WELL AS



Feet: 0 12 SCALE: 1/4" = 1'-0"

STAIR **STAIR A KEY PLAN** NTS



3.6v LED

WALL

ELECTRICAL DEMOLITION PLAN (ELEV. MACH. RM.)

LAMPS

LUMINAIRE SCHEDULE

VOLTS

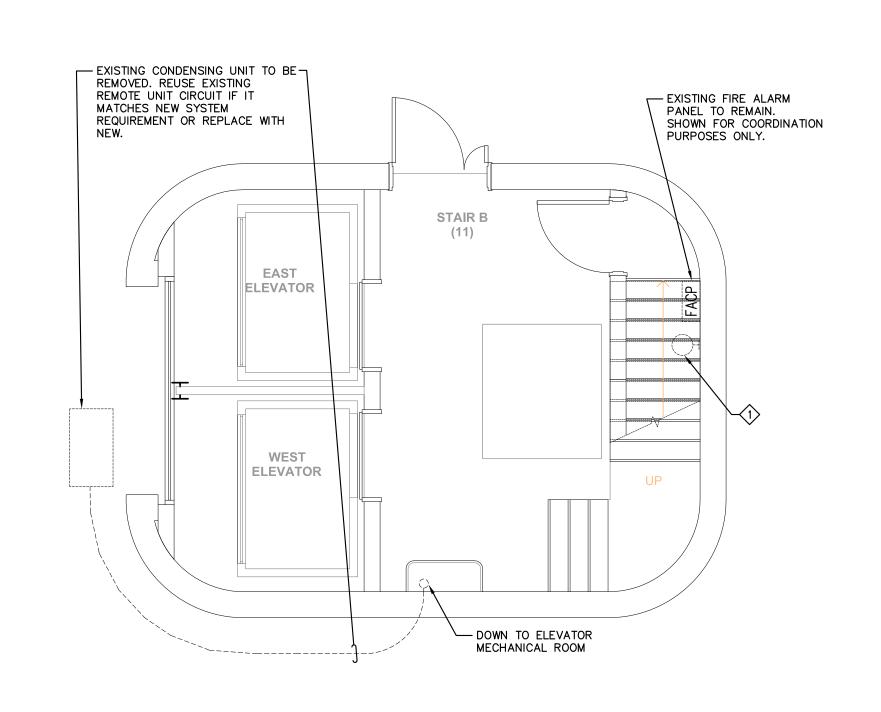
120

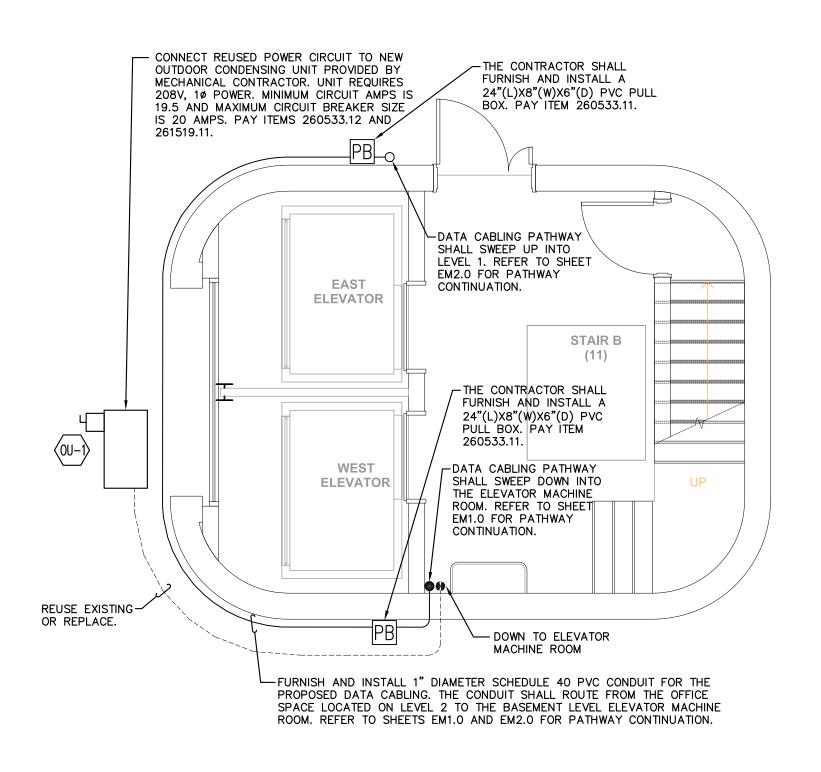
DESCRIPTION

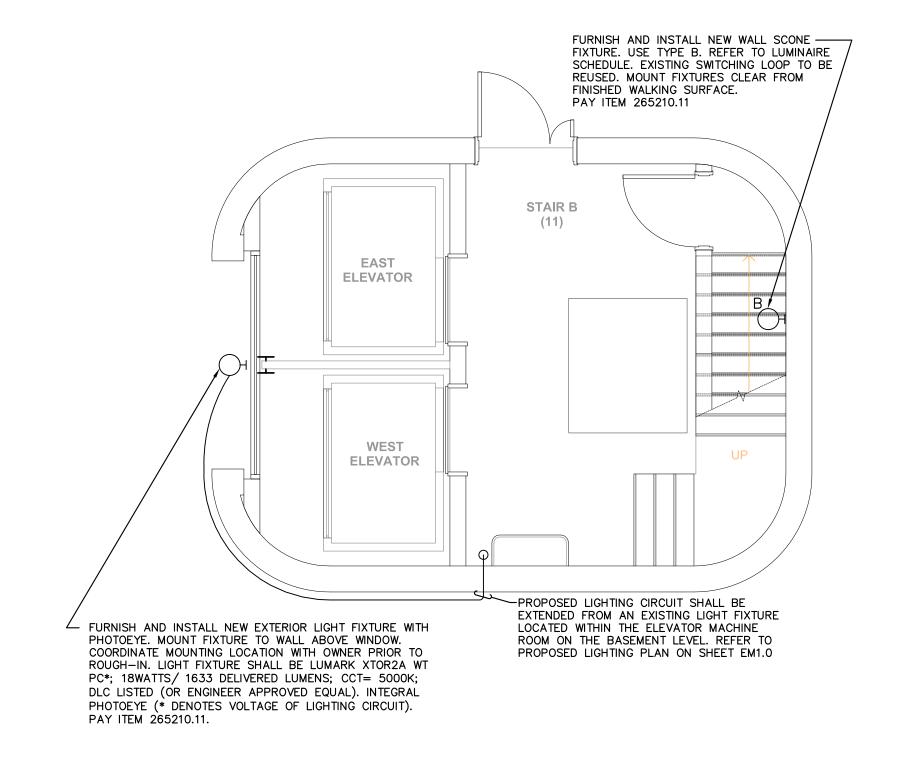
WHITE LOW PROFILE 4-FT LINEAR INDUSTRIAL

RANGE = 24-FT SINGLE COVERAGE WHEN

MOUNTED AT 7.5-FT AFF. CAPACITY SIZE TO BE DETERMINED









ELECTRICAL DEMOLITION PLAN (ELEV. LOBBY)

♦ KEYED NOTES DEMO PLAN:

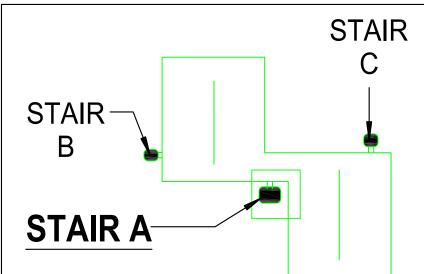
1. REMOVE EXISTING WALL SCONE FIXTURE.



PROPOSED ELECTRICAL PLAN (ELEV. LOBBY)



PROPOSED LIGHTING PLAN (ELEV. LOBBY)



KEY PLAN

NTS



PRIME, STRUCTURAL

Hoyle, Tanner Associates, Inc. 125 College Street, 4th Floor Burlington, VT 05401

Tel: (802) 860-1331

ARCHITECT

freeman | french | freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C.

Electrical / Telecom Consulting Suite 103

5399 Williston Road Williston, Vermont 0549 Phone 802-655-5731

MECHANICAL 69 Union St. Winooski, VT 05404 (802) 655-1753

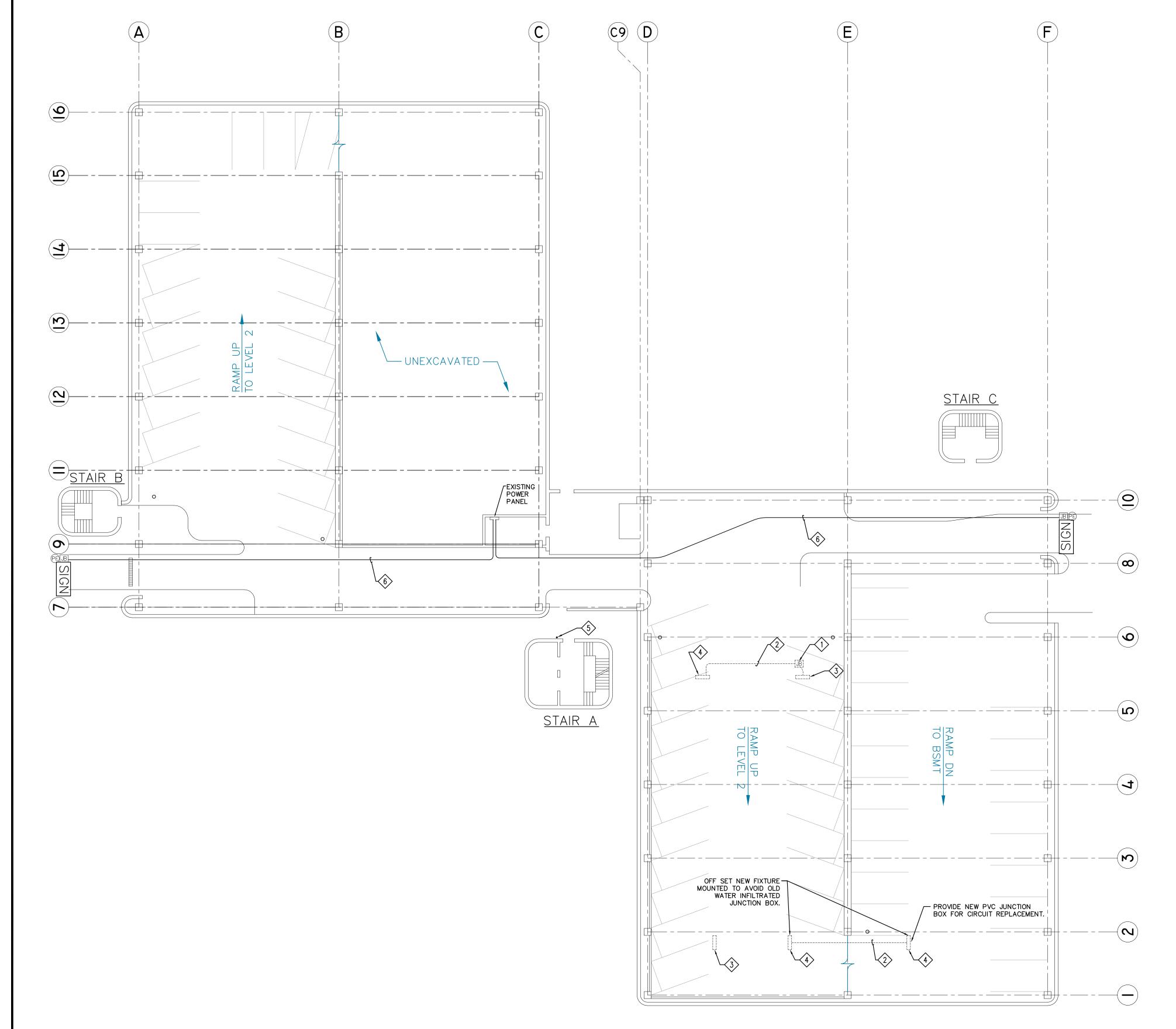
CONSULTING

LEVEL 1 DEMOLITION & PROPOSED ELECTRICAL/LIGHTING PLANS MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

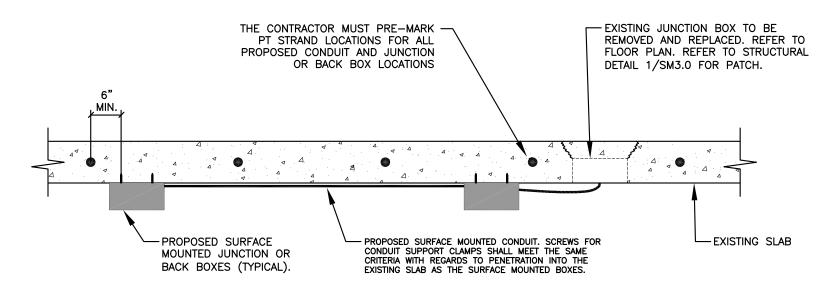
SHEET NO.

PROJECT NO. 909044

Feet: 0 SCALE: 1/4" = 1'-0"

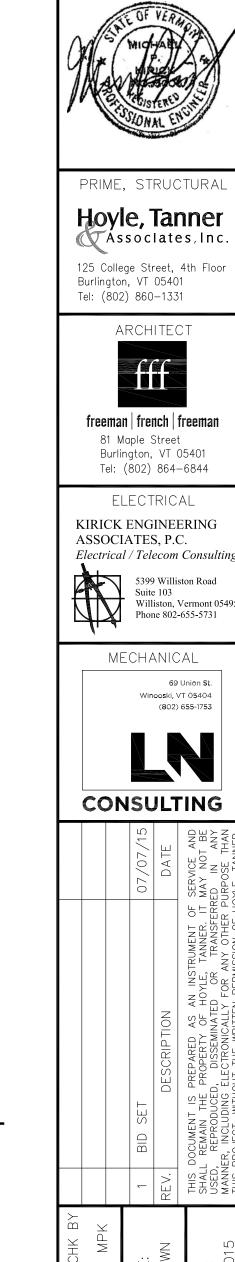


- 1. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING JUNCTION BOX. THE EXISTING JUNCTION BOX SHALL BE REPLACED WITH NEW PVC JUNCTION BOX. THE NEW BOX SHALL MATCH THE SIZE OF THE EXISTING JUNCTION BOX THAT SHALL BE REMOVED. PAY ITEM 260533.11.
- THE CONTRACTOR SHALL FURNISH AND INSTALL NEW CONDUIT AND WIRE FROM JUNCTION BOX TO THE LIGHT FIXTURE THAT SHALL BE REPLACED. THE NEW CONDUIT SHALL BE PVC OR SEALTITE MATERIAL. USE #10 AWG SIZE CONDUCTORS OR MATCH EXISTING. PAY ITEM 260533.12 AND 261519.11.
- 3. EXISTING LIGHT FIXTURE TO REMAIN AS IS.
- 4. THE CONTRACTOR SHALL REPLACE THE EXISTING LIGHT FIXTURE WITH NEW. THE NEW FIXTURE SHALL BE TYPE C. REFER TO LUMINAIRE SCHEDULE. PAY ITEM 265210.11.
- 5. THE DATA CABLING PATHWAY ORIGINATING IN THE LEVEL 2 OFFICE, SHALL ROUTE DOWN THROUGH THE FIRST FLOOR APPROXIMATELY AS SHOWN. REFER TO SHEETS EM1.1 AND EM2.1 FOR PATHWAY CONTINUATION.
- 6. FURNISH AND INSTALL NEW CIRCUIT FOR ELECTRIC SIGN PROVIDED BY THE CITY OF BURLINGTON. USE (2)#10, (1)#10G, 3/4" PVC SCHEDULE 40 OR SEALTITE TO ELECTRIC ROOM LOCATED ON LEVEL 1. PROVIDE 20A, 120VAC CIRCUIT BREAKER FOR NEW SIGNAGE LIGHTING. SEE ALSO SHEET EM2.2. TERMINATE THE CIRCUIT INTO A WEATHERPROOF JUNCTION BOX AT THE PROPOSED SIGN LOCATION. COORDINATE JUNCTION BOX MOUNTING LOCATION WITH OWNER. FURNISH AND INSTALL WEATHERPROOF PHOTO EYE FACING SKY WHERE NOT INCIDENT TO OTHER LIGHT SOURCES. PAY ITEMS 260533.11 AND 261519.11.



TYPICAL SURFACE INFRASTRUCTURE MOUNTING DETAIL

SCALE: NTS



JIN ACE IN NACINOCIONE MODIVINO DETAIL			ľ
			9
	1		(
	\vdash		H
	1		
	1		ĺ

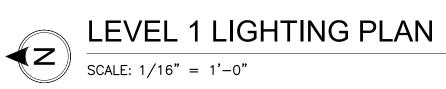
MARKETI RENOVA: BURLIN

SHEET NO.

EM2.0

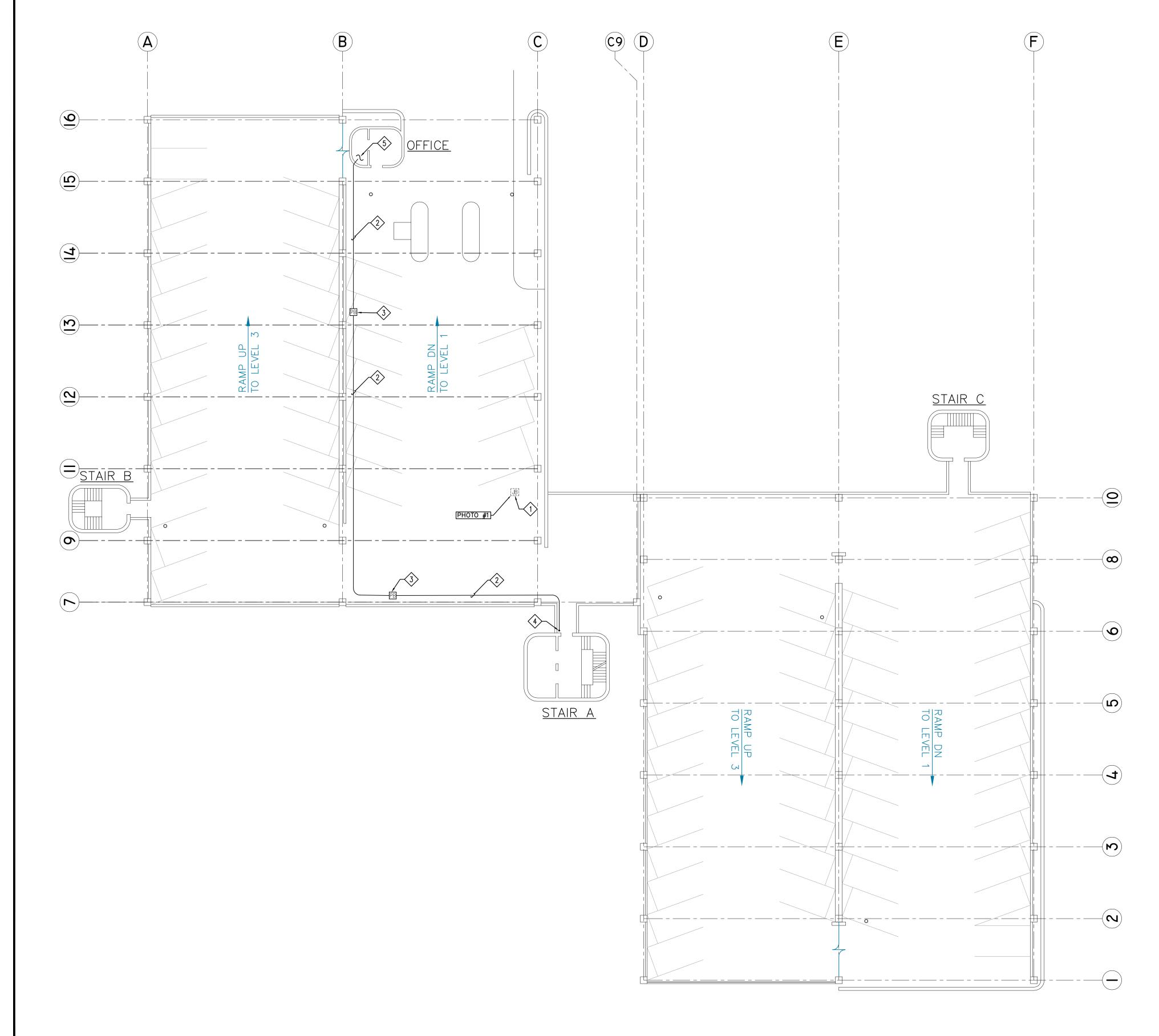
PROJECT NO. 909044

SHEET **20** OF **26**



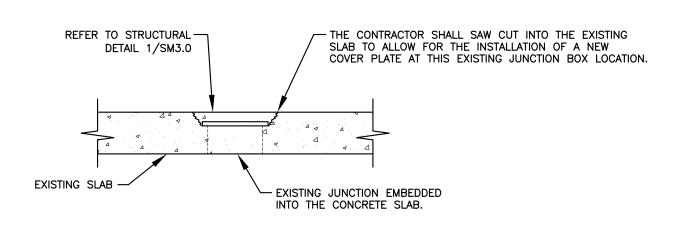
Feet: 0 4 12 20 28 36

SCALE: 1/16" = 1'-0"



♦ KEYED NOTES THIS SHEET:

- 1. THE CONTRACTOR SHALL PROVIDE NEW STAINLESS STEEL COVER PLATING FOR EMBEDDED JUNCTION BOX. CHIP CONCRETE FROM AROUND EXISTING BOX FOR NEW PLATE, BOTH TOP AND BOTTOM. PROVIDE NEW ANCHOR BOLTS EMBEDDED IN CONCRETE FOR SECURING NEW PLATES AND PATCH AND SEAL AROUND FOR A SMOOTH AND LEVEL FINISH.
- 2. THE CONTRACTOR SHALL FURNISH AND INSTALL A 1" DIAMETER SCHEDULE 40 PVC CONDUIT ORIGINATING AT THE OFFICE AND EXTENDING DOWN INTO THE BASEMENT LEVEL ELEVATOR MACHINE ROOM. THIS PATHWAY BE USED TO INSTALL (2) CAT6, 4—PAIR DATA CABLES FROM THE OFFICE TO THE BASEMENT LEVEL ELEVATOR MACHINE ROOM. THE CAT6 CABLE MUST BE A CMR/CMX OUTDOOR RATED CABLE, AS MANUFACTURED BY SUPERIOR ESSEX, OR ENGINEER APPROVED EQUIVALENT. THE CONTRACTOR SHALL VERIFY CABLE
- JACKET COLOR WITH OWNER PRIOR TO PURCHASE. PAY ITEMS 260533.11 AND 260500.11 3. THE CONTRACTOR SHALL FURNISH AND INSTALL A 24"(L)X8"(W)X6"(D) PVC PULL BOX. PAY ITEM 260533.12.
- 4. THE CONDUIT SHALL SWEEP DOWN INTO LEVEL 1. REFER TO SHEET EM2.0 FOR PATHWAY CONTINUATION.
- 5. THE CONTRACTOR SHALL EXTEND CONDUIT AND DATA CABLING WITHIN THE OFFICE SPACE AS DIRECTED BY THE OWNER FOR CABLE TERMINATION.



TYPICAL CONCRETE DECK REMOVAL DETAIL

SCALE: NTS



PHOTO #1 SCALE: NTS



PRIME, STRUCTURAL

Hoyle, Tanner
Associates, Inc.

125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

freeman french freeman

81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C.

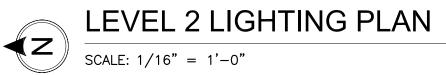
Electrical / Telecom Consulting 5399 Williston Road Williston, Vermont 0549 Phone 802-655-5731

> MECHANICAL 69 Union St. Winooski, VT 05404

(802) 655-1753

CONSULTING

SHEET NO.



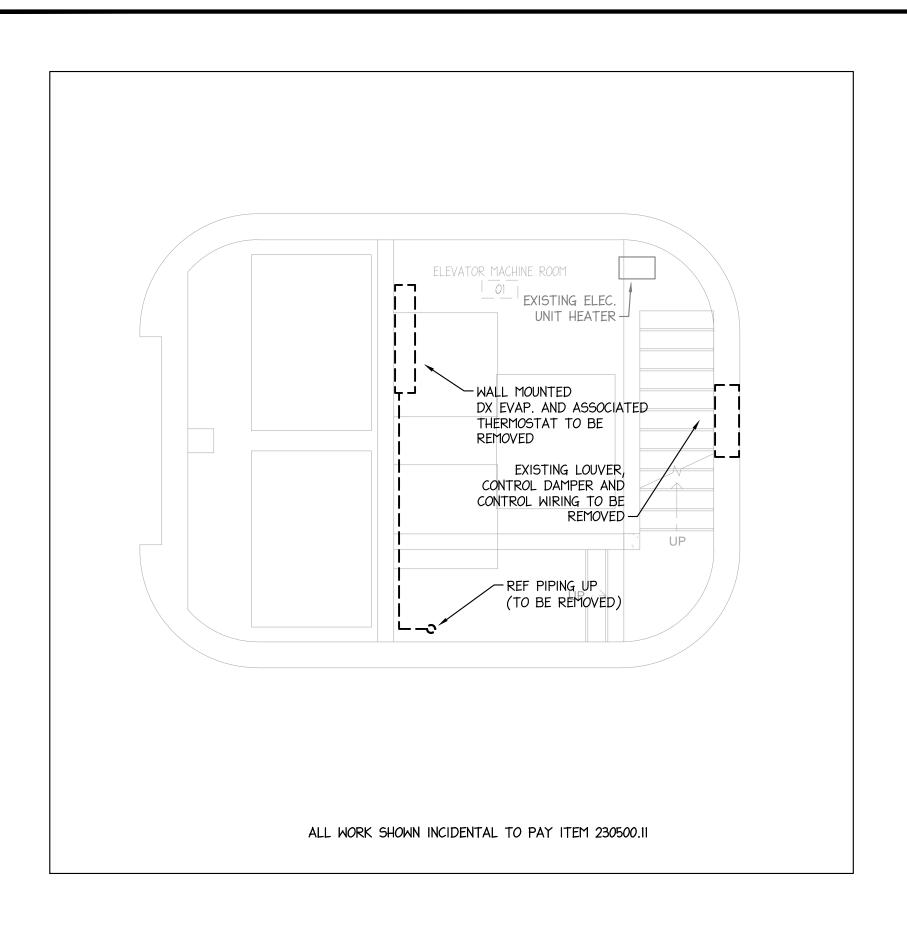
SCALE: 1/16" = 1'-0"

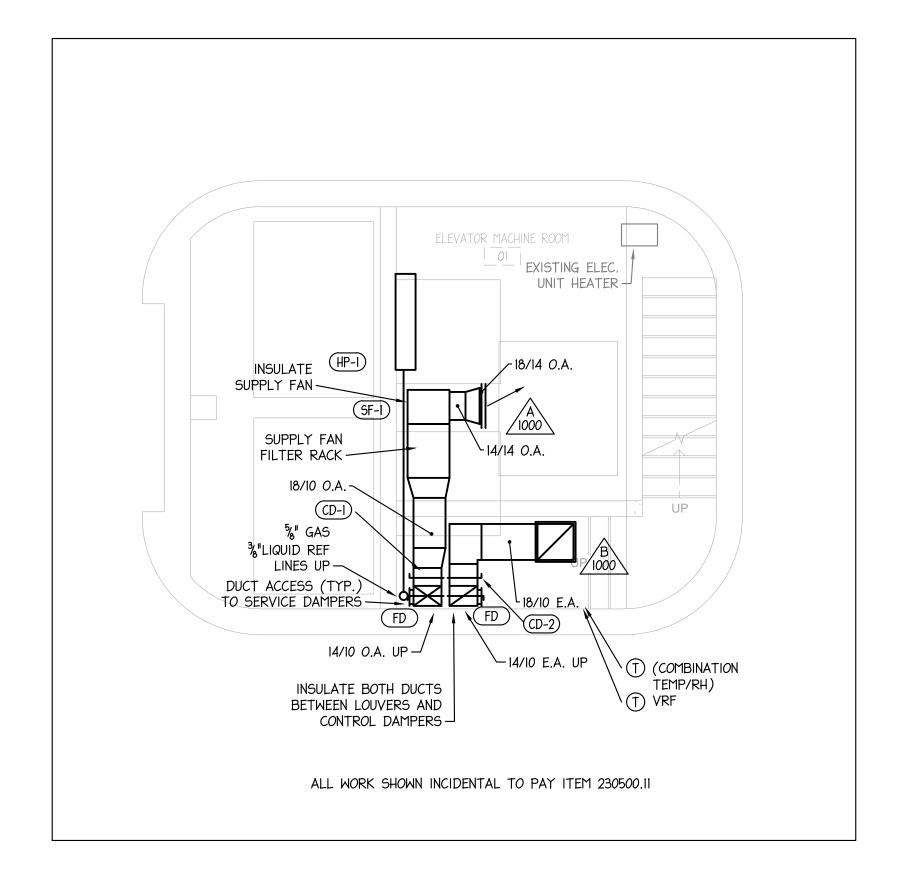
NOT FOR CONSTRUCTION THESE CONTRACT DOCUMENTS ARE FOR REFERENCE AND VIEWING ONLY ♦ KEYED NOTES THIS SHEET: 1. THE CONTRACTOR SHALL PROVIDE NEW STAINLESS STEEL COVER PLATING FOR EMBEDDED J-BOX. CHIP CONCRETE FROM AROUND EXISTING BOX FOR NEW PLATE, BOTH TOP AND BOTTOM. PROVIDE NEW ANCHOR BOLTS EMBEDDED IN CONCRETE FOR SECURING NEW PLATES AND PATCH AND SEAL AROUND FOR A SMOOTH AND LEVEL FINISH. REFER TO DETAIL ON SHEET EM2.1. 2. THE EXISTING LIGHT FIXTURE CONTAINS WATER WITHIN THE FIXTURE. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING FIXTURE AND REPLACE WITH NEW FIXTURE. THE NEW LIGHT FIXTURE SHALL BE TYPE C. REFER TO LUMINAIRE SCHEDULE. RE-FEED FROM NEW J-BOX TOP WITH SHORT LENGTH OF SEALTITE. PRIME, STRUCTURAL 3. FURNISH AND INSTALL NEW CIRCUIT FOR ELECTRIC SIGN PROVIDED BY THE CITY OF BURLINGTON. USE (2)#10, (1)#10G, 3/4" PVC SCHEDULE 40 OR SEALTITE TO ELECTRIC ROOM LOCATED ON LEVEL 1. PROVIDE 20A, 120VAC CIRCUIT BREAKER FOR NEW SIGNAGE LIGHTING. SEE ALSO SHEET EM2.0. TERMINATE THE CIRCUIT INTO A WEATHERPROOF JUNCTION BOX AT THE PROPOSED SIGN LOCATION. COORDINATE JUNCTION BOX MOUNTING LOCATION WITH OWNER. FURNISH AND INSTALL WEATHERPROOF PHOTO EYE FACING SKY WHERE NOT INCIDENT TO OTHER LIGHT SOURCES. PAY JIEMS 260533 12 AND 261519 11 Hoyle, Tanner Associates, Inc. 125 College Street, 4th Floor WHERE NOT INCIDENT TO OTHER LIGHT SOURCES. PAY ITEMS 260533.12 AND 261519.11. Burlington, VT 05401 Tel: (802) 860-1331 ARCHITECT freeman french freeman 81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844 ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C. Electrical / Telecom Consulting Suite 103 STAIR C MECHANICAL STAIR C (0) 69 Union St. Winooski, VT 05404 (802) 655-1753 $-(\infty)$ CONSULTING (**Q**) $(\mathbf{\Omega})$ PARTIAL LEVEL 5 LIGHTING PLAN **₹**Z (D) SCALE: 1/16" = 1'-0"STAIR A **(t**) **(N**) (7) SHEET NO. LEVEL 3 LIGHTING PLAN SCALE: 1/16" = 1'-0"Feet: 0 4 12 20 28 36 SCALE: 1/16" = 1'-0"

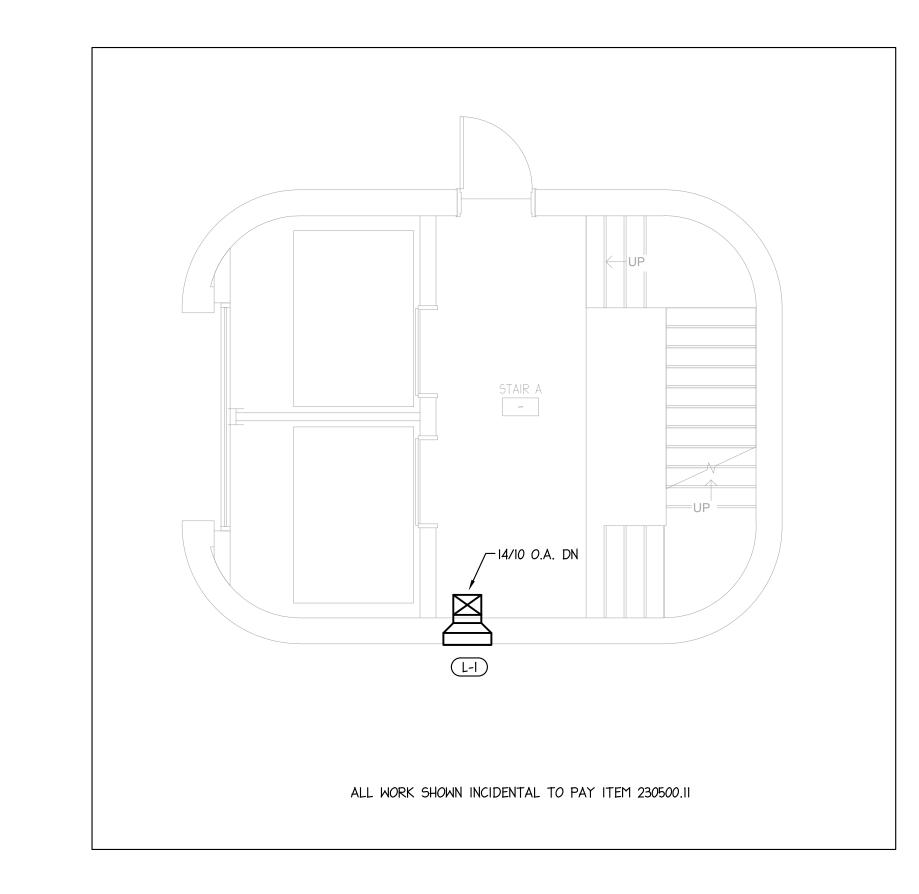
5399 Williston Road Williston, Vermont 0549

Phone 802-655-5731

EM2.2





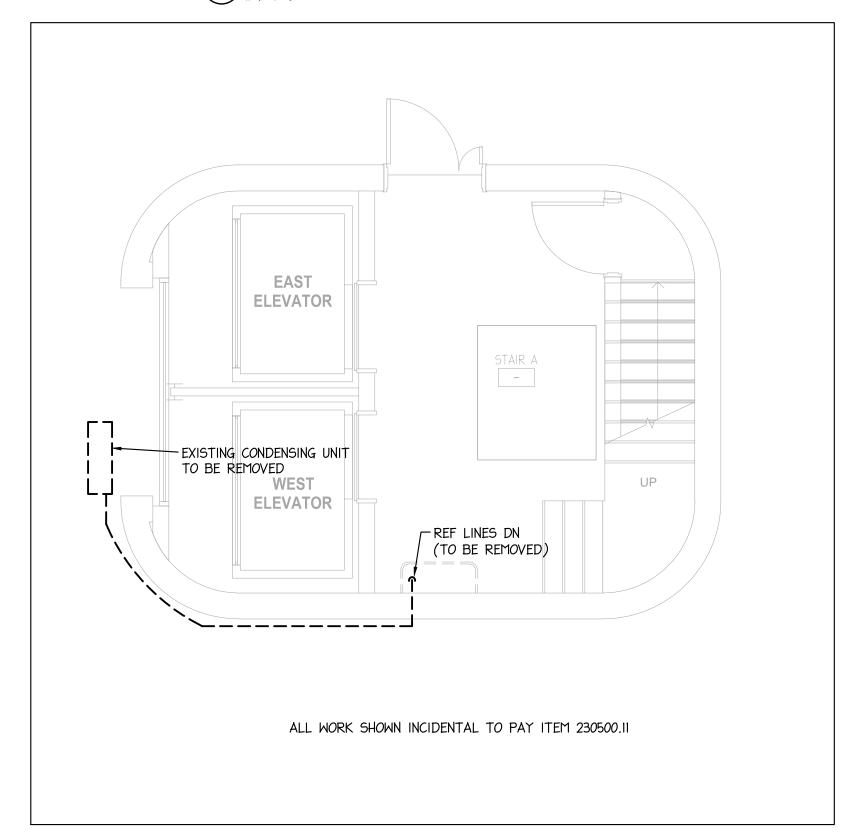


STAIR TOWER A (ELEV. MACHINE ROOM)

LEVEL TWO MECHANICAL NEW WORK PLAN

1/4"=1'-0"

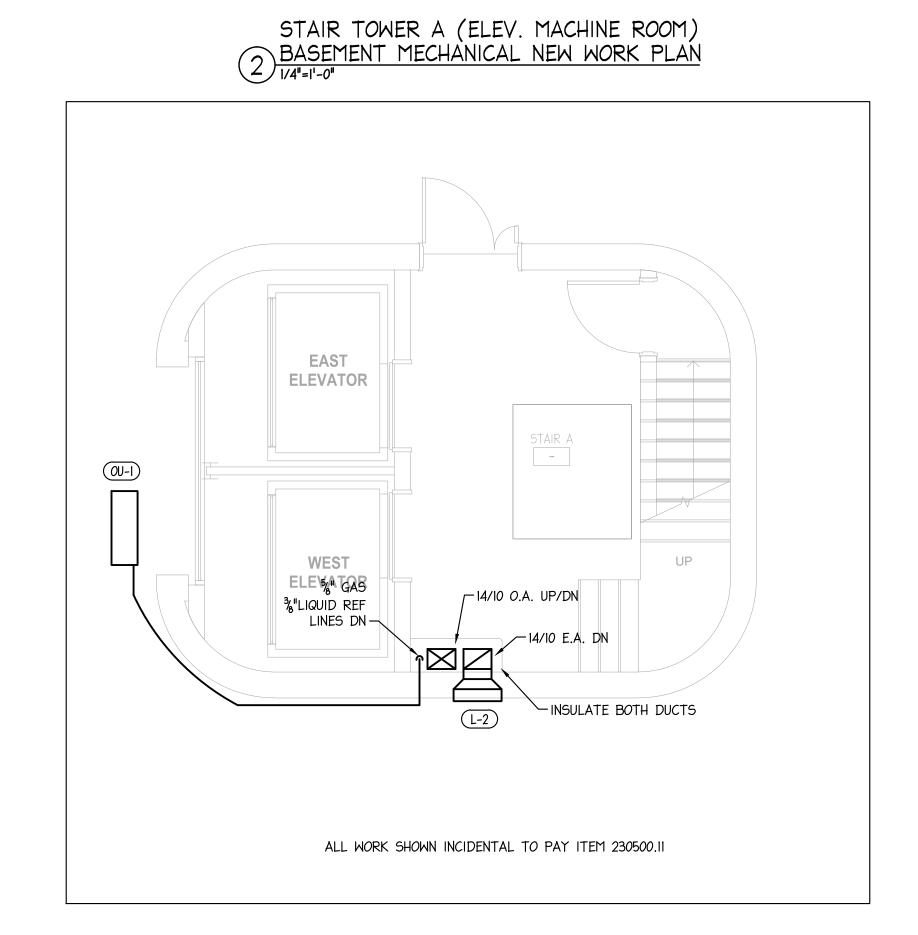
STAIR TOWER A (ELEV. MACHINE ROOM) BASEMENT MECHANICAL DEMOLITION PLAN 1/4"=1'-0"



STAIR TOWER A (ELEV. MACHINE ROOM)

LEVEL ONE MECHANICAL DEMOLITION PLAN

1/4"=1'-0"

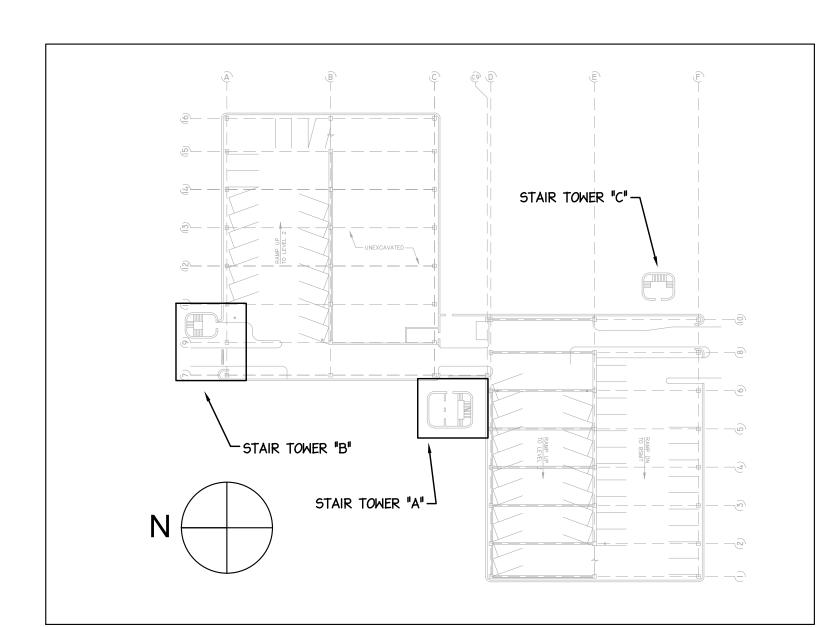


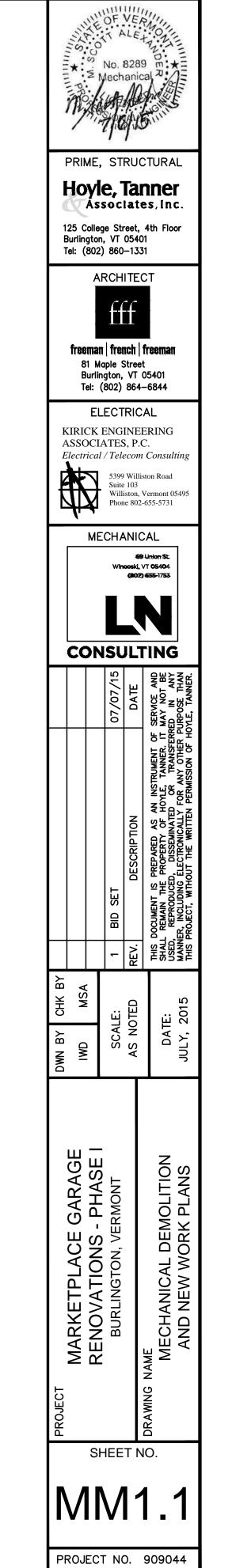
STAIR TOWER A (ELEV. MACHINE ROOM)

LEVEL ONE MECHANICAL NEW WORK PLAN

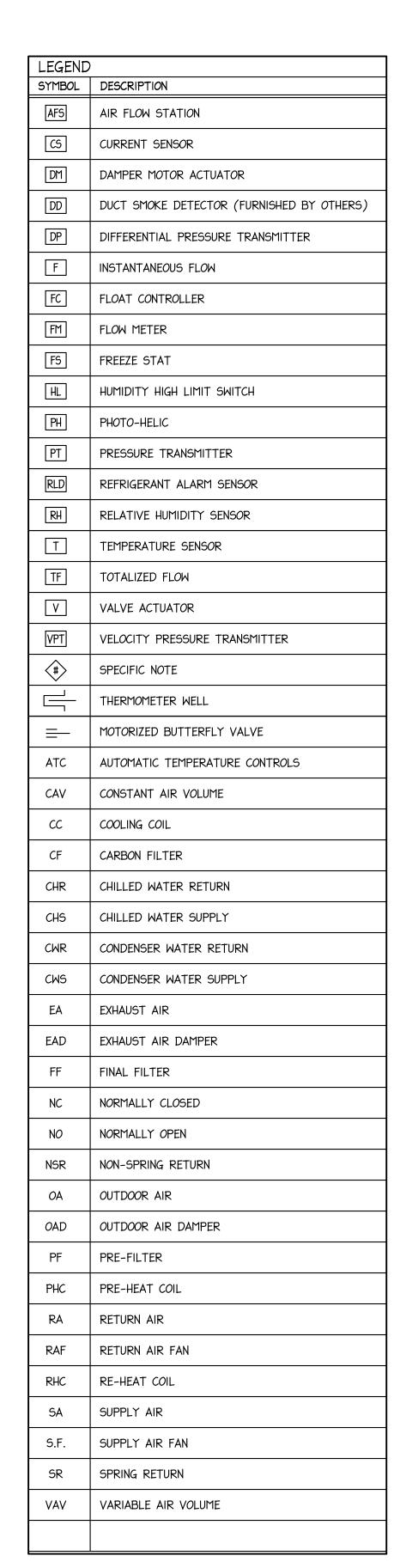
1/4"=1'-0"

5 KEY PLAN N.T.S.



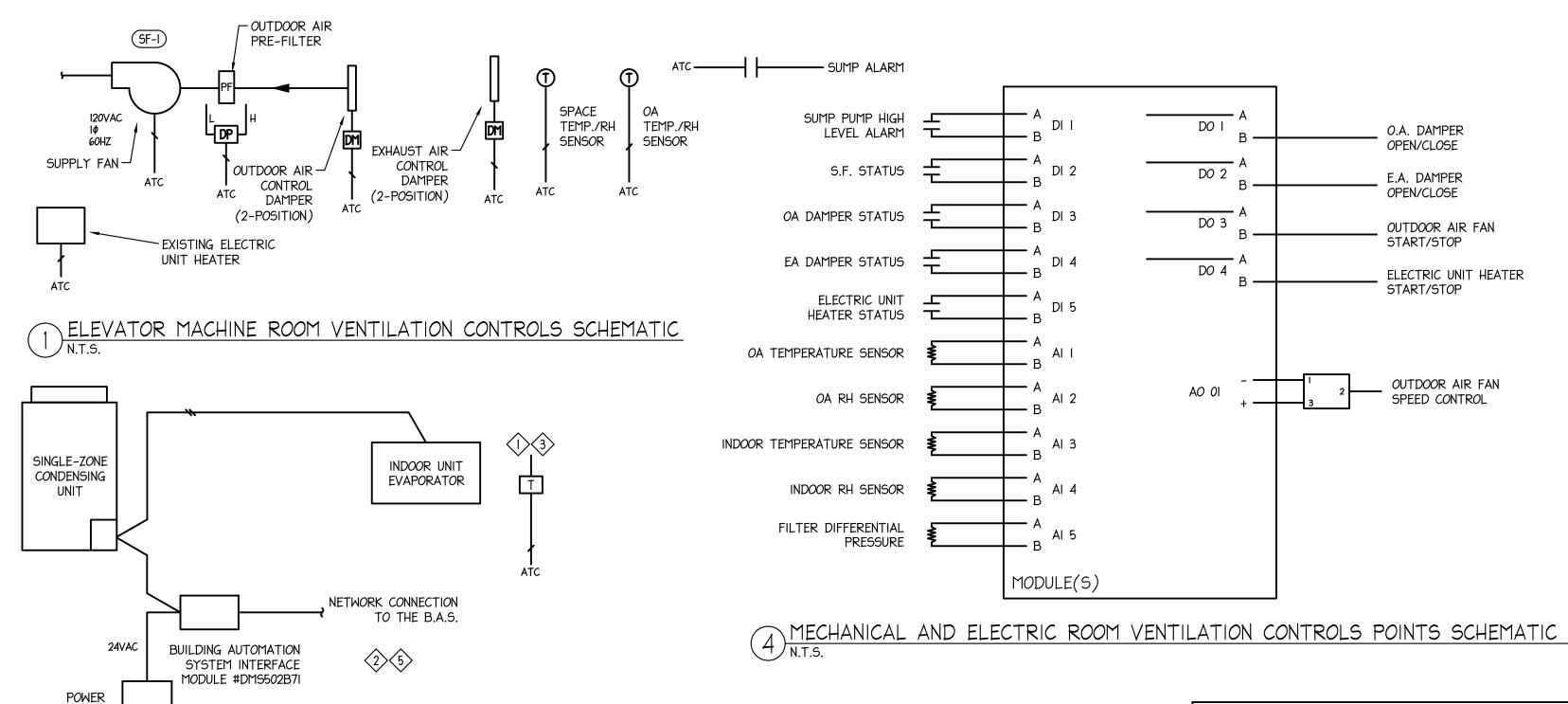


SHEET 23 OF 26



DIRECT DIGITAL CONTROLS GENERAL NOTES

- I. ALL NEW CONTROLS WORK SHALL UTILIZE A COMPLETE WEB-BASED DIRECT DIGITAL CONTROLS SYSTEM.
- 2. THE CONTROLS CONTRACTOR SHALL PROVIDE ALL THE NECESSARY MATERIALS, LABOR AND ACCESSORIES IN ORDER TO PROVIDE A COMPLETE WORKING DIRECT DIGITAL CONTROLS SYSTEM.
- 3. PROVIDE A COMPLETE AND OPERATIONAL DIRECT DIGITAL CONTROLS SYSTEM INCLUDING ALL REQUIRED WIRING, PROGRAMMING, DEVICES, AND OPERATIONS MANUALS. THE CONTROLS CONTRACTOR'S WORK SHALL INCLUDE BUT NOT BE LIMITED TO: PROVIDING SENSORS FOR THE CONTROLS SYSTEM, AUTOMATIC CONTROL VALVES AND ACTUATORS, CONTROL MODULE(S), CONDUCTORS, CONDUIT, "FRONT END" GRAPHICS, PROGRAMMING, AND CONNECTION TO THE COMMUNICATIONS BUS.
- 4. THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROLS CONDUIT. ALL CONTROLS CONDUCTORS SHALL BE INSTALLED WITHIN E.M.T. OR FLEXIBLE METAL CONDUIT. THE CONTROLS CONDUIT SHALL BE A MINIMUM OF 3/4" EMT. FINAL DROPS TO TEMPERATURE SENSORS MAY BE IN 1/2" EMT. ALL CONTROL WIRING SHALL BE IN CONDUIT.
- 5. EXTEND TEMPERATURE CONTROLS COMMUNICATION BUS TO CONTROL MODULE LOCATIONS IN E.M.T.
- 6. A MAXIMUM DISTANCE OF 6'-0" SHALL BE PERMITTED FOR UTILIZING FLEXIBLE METAL CONDUIT OR SEAL TIGHT CONDUIT.
- 7. PROVIDE CONTROLS TO ACCOMMODATE CONTROLS POINTS LIST AND SEQUENCE OF OPERATIONS.
- 8. ALL CONTROLS CONDUCTORS SHALL BE EXTENDED TO THE TEMPERATURE CONTROLS PANELS.
- 9. ALL CONTROLS MODULES SHALL BE MOUNTED IN A PROTECTIVE ENCLOSURE.
- 10. THE CONTROLS CONTRACTOR SHALL BE PRESENT DURING THE FINAL BALANCE OF THE NEW AIR HANDLING SYSTEMS.
- II. COORDINATE LOCATION OF ALL TEMPERATURE SENSORS AND CONTROL VALVES IN FIELD. VERIFY LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
- 12. THE TEMPERATURE CONTROLS CONTRACTOR IS RESPONSIBLE FOR ASSISTING THE TESTING AND BALANCE AGENT DURING THE BALANCING PROCESS. THE TEMPERATURE CONTROLS CONTRACTOR SHALL WORK IN CONJUNCTION WITH THE TESTING AND BALANCE AGENT TO COMPLETE THE BALANCE AND CALIBRATION OF ALL SYSTEMS.
- 13. CONTROLS CONTRACTOR IS RESPONSIBLE FOR PROVIDING WEB ACCESS FOR CONTROLS SYSTEM. SYSTEM SHALL BE ACCESSIBLE FROM REMOTE LOCATION.
- 14. CONTROLS SYSTEM TO BE ABLE TO STORE UP TO 1 YEAR OF ELEVATOR MACHINE ROOM AND OUTDOOR TEMPERATURE AND HUMIDITY DATA



SEQUENCE OF OPERATIONS

SUPPLY

120VAC

VENTILATION:

DURING UNOCCUPIED HOURS, THE OUTDOOR AIR AND EXHAUST AIR CONTROL DAMPERS SHALL BE CLOSED (6 PM TO 6 AM ADJ.). DURING OCCUPIED HOURS, THE OUTDOOR AIR AND EXHAUST AIR CONTROL DAMPERS SHALL BE OPENED (6 AM TO 6 PM ADJ.).

HEATING MODE:

WHEN SPACE TEMPERATURE DROPS BELOW 58°F (ADJ.) THE SPACE SHALL GO INTO HEATING MODE. IF OUTDOOR AIR ENTHALPY IS GREATER THAN INDOOR AIR ENTHALPY, THE EA AND OA CONTROL DAMPERS SHALL OPEN AND THE SUPPLY FAN SHALL ENABLE AND MODULATE TO MAINTAIN 58°F (ADJ.). FAN SHALL BE AT FULL FAN SPEED AT 55°F (ADJ.) AND MINIMUM AT 57.5°F (ADJ.). IF OUTDOOR AIR ENTHALPY IS LESS THAN INDOOR AIR ENTHALPY, THE AIR SOURCE HEAT PUMP SHALL BE ENABLED TO MAINTAIN SPACE TEMPERATURE SET POINT. IF SUPPLY FAN CAN NOT MAINTAIN TEMPERATURE SET POINT AND TEMPERATURE DROPS TO 54°F (ADJ.), SUPPLY FAN SHALL BE DISABLED AND HEATING SHALL BE PROVIDED BY THE HEAT PUMP. IF THE SUPPLY FAN HAS BEEN DISABLED AND THE HEAT PUMP CAN NOT MAINTAIN SPACE TEMPERATURE AFTER I HOUR (ADJ.) THE ELECTRIC UNIT HEATER SHALL BE ENABLED AND AN ALARM SENT. ONCE SET POINT HAS BEEN REACHED, THE ELECTRIC UNIT HEATER SHALL BE DISABLED.

COOLING MODE:

WHEN SPACE TEMPERATURE RISES ABOVE 82°F (ADJ.) THE SPACE SHALL GO INTO COOLING MODE. IF OUTDOOR AIR ENTHALPY IS LESS THAN INDOOR AIR ENTHALPY, THE EA AND OA CONTROL DAMPERS SHALL OPEN AND THE SUPPLY FAN SHALL ENABLE AND MODULATE TO MAINTAIN 82°F (ADJ.), GOING TO FULL SPEED AT 85°F (ADJ.) AND MINIMUM SPEED AT 82.5°F (ADJ.). IF OUTDOOR AIR ENTHALPY IS GREATER THAN INDOOR AIR ENTHALPY, THE SUPPLY FAN SHALL BE DISABLED AND THE AIR SOURCE HEAT PUMP SHALL BE ENABLED TO MAINTAIN SPACE TEMPERATURE SET POINT. IF SUPPLY FAN CAN NOT MAINTAIN TEMPERATURE SET POINT AND TEMPERATURE RISES ABOVE 85°F (ADJ.), SUPPLY FAN SHALL BE DISABLED AND COOLING SHALL BE PROVIDED BY THE HEAT PUMP. IF THE SPACE TEMPERATURE RISES ABOVE 87°F (ADJ.), SEND AN ALARM. IF THE SPACE RH % RISES TO 94% (ADJ.) SEND AN ALARM. IF THE SUPPLY FAN AND UTILIZE THE HEAT PUMP TO DEHUMIDIFY THE SPACE.

MONITORING:

AIR TO AIR HEAT PUMP SYSTEM STATUS AND MODE SHALL BE TRANSMITTED TO THE BUILDING AUTOMATION SYSTEM AND BE ACCESSIBLE FOR CONTROL FROM B.A.S. SET POINTS AND UNIT MODE SHALL BE ADJUSTABLE FROM THE B.A.S.

PROVIDE A CLOGGED FILTER ALARM WHEN THE INTAKE PRE-FILTER DIFFERENTIAL PRESSURE REACHES 0.4" (ADJ.). SEND A MESSAGE TO MAINTENANCE ONCE EVERY 6 MONTHS (ADJ.) TO CHECK THE FILTER.

ALARM POINTS

O.A. DAMPER FAIL
E.A. DAMPER FAIL
SF FAIL
SPACE TEMPERATURE HIGH
SPACE TEMPERATURE LOW
SUMP HIGH LEVEL
RH HIGH
HEAT PUMP FAULT
FILTER DP HIGH

* NOTES:

MACHINE ROOM HVAC SYSTEM SCHEMATIC DIAGRAM SCHEMATIC

I. FURNISH AND INSTALL CONTROLLER (BRCIE72). CONTROLLER SHALL ENABLE/DISABLE VARIABLE REFRIGERANT HEAT PUMP HEAD (EVAPORATOR), PROVIDE ROOM TEMPERATURE DATA TO THE VARIABLE REFRIGERANT HEAT PUMP HEAD.

2. MAP ALL USER ADJUSTABLE POINTS FROM THE AIR TO AIR VARIABLE REFRIGERANT VOLUME HEAT PUMP SYSTEM TO THE BUILDING AUTOMATION SYSTEM FRONT END.

- 3. THE CONTROLS CONTRACTOR SHALL PROVIDE ALL INTERCONNECTING WIRING REQUIRED FOR THE SYSTEM MODULES. ALL WIRING SHALL BE SIZED PER THE MANUFACTURER'S REQUIREMENTS AND INSTALLED IN CONDUIT. CONTROLS CONTRACTOR SHALL WORK WITH THE VRF MANUFACTURER TO COORDINATE THE OPERATION OF THE VRF SYSTEM AND THE INTERCONNECT WITH THE BACNET SYSTEM.
- 4. VERIFY ELECTRIC UNIT HEATER IN ELEVATOR MACHINE ROOM OPERATES SATISFACTORILY.
- 5. SERVICES OF A TESTING ADJUSTING AND BALANCING CONTRACTOR ARE NOT REQUIRED FOR THIS ELEVATOR WORK.
- 6. ALL WORK AS IDENTIFIED ON THIS SHEET SHALL BE INCIDENTAL TO PAY ITEM 230500.11.

MAPPED OBECTS FROM VRV HEAT PUMP CONTROLLER (READ ONLY)
START/STOP STATUS
ALARM
MALFUNCTION CODE
AIR CONDITIONING MODE
ROOM TEMPERATURE (PROVIDE FACTORY SPACE MOUNTED TEMP. SENSOR)
THERMOSTAT STATUS
COMPRESSOR STATUS
INDOOR FAN STATUS
ACCUMULATED POWER

ACCUMULATED POWER
MAPPED OBECTS VRV HEAT PUMP CONTROLLER
(READ/WRITE)
START/STOP OPERATION
AIR CONDITIONING MODE
ROOM TEMPERATURE
ROOM CONTROLLER ENABLE/DISABLE
ROOM TEMPERATURE (PROVIDE FACTORY SPACE MOUNTED TEMP. SENSOR)
AIR FLOW RATE SETTING
FORCED SYSTEM STOP
FORCED THERMOSTAT DISABLE
ENERGY SAVING



PRIME, STRUCTURAL
Hoyle, Tanner

Associates, Inc.

125 College Street, 4th Floor
Burlington, VT 05401
Tel: (802) 860-1331



81 Maple Street
Burlington, VT 05401
Tel: (802) 864-6844

ELECTRICAL

KIRICK ENGINEERING
ASSOCIATES, P.C.
Electrical / Telecom Consulting
5399 Williston Road
Suite 103
Williston, Vermont 0549,
Phone 802-655-5731

MECHANICAL

\$9 Union \$1:
Winooski, VT 05404

(802) \$55-1753

BY

1 BID SET

REV. DESCRIPTION

THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF HOYLE, TANNER. IT MAY NOT BE USED, REPRODUCED, DISSEMINATED OR TRANSFERRED IN ANY MANNER, INCLUDING ELECTRONICALLY FOR ANY OTHER PURPOSE THAN THIS PROJECT, WITHOUT THE WRITTEN PERMISSION OF HOYLE, TANNER.

MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

SHEET NO.

MM3.

PROJECT NO. 909044

SHEET 24 OF 26

PLUN	PLUMBING EQUIPMENT SCHEDULE										
TAG	DESCRIPTION	MAKE \$ MODEL	WASTE	REMARKS							
(SP-I)	DUPLEX PACKAGED SUMP PUMP SYSTEM	ZOELLER MODEL #53 (20GPM @ 15')	1½"	SUMP PUMP RATED FOR 20 GPM @ 15' HD., PROVIDE WITH PIGGYBACK VARIABLE LEVEL FLOAT SWITCH AND A-PAK ALARM SYSTEM. A HIGH LEVEL FLOAT SHALL SIGNAL A LOCAL ALARM. (120V-9.7A)							
HP-I)	LIJALI MAHATED	SEE MECHANICAL SCHEDULES	3/4"	CONDENSATE DRAIN TO BE RUN ALONG THE WALL TO THE SUMP PUMP BASIN. PROVIDE STEP PROTECTION FOR THE PIPING THAT IS RUN ACROSS THE FLOOR TO THE BASIN.							
TD-I)	TRENCH DRAIN	ZURN PRODUCTS Z882-HDS-U4-HPD	4"	MODULAR CHANNEL SECTIONS OF HDPE, AND STAINLESS STEEL FRAME. DRAIN TO BE 96" LONG. CONTRACTOR TO VERIFY EXISTING PIPE SIZE PRIOR TO ORDERING.							

GENERAL NOTES:

- 1. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 2. SUMP PUMP SHALL TIE INTO EXISTING 1/2" STORM LINE.
- 4. TRENCH DRAINS TO HAVE 8206 DRAIN BODY. (II.25" SHALLOW INVERT, 12.25" DEEP INVERT ON AN 8FT DRAIN). EXACT DEPTH TO BE COORDINATED WITH PIPING CONNECTION IN FIELD.

HEAT	HEAT PUMP VRF SYSTEM SCHEDULE											
TAG	DESCRIPTION	MAKE # MODEL	CFM	REFRIGERANT	COOLING CAP.	HEATING CAP.	ELECTRICAL	NOTES				
HP-I	INDOOR WALL MOUNTED HEAT PUMP	DAIKIN AC FTXS30LVJU	706	R-410A	30,000 BTU/HR	34,800 BTU/HR	208V/IP	1,2,3,4,5,6				

NOTES:

- 1. FURNISH AND INSTALL ALL LIQUID/SUCTION PIPING BETWEEN EVAPORATOR AND CONDENSING UNIT. COORDINATE PIPE SIZING AND ROUTING WITH MANUFACTURER'S REQUIREMENTS AND
- RECOMMENDATIONS.
- 2. EACH UNIT TO BE INSTALLED WITH WIRED WALL MOUNTED TEMPERATURE CONTROLLER.
- 3. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4. NOMINAL COOLING CAPACITIES BASED ON FOLLOWING CONDITIONS: 80°F DB/ 67°F WB (INDOOR), 95°F DB/ 75°F WB (OUTDOOR). 5. NOMINAL HEATING CAPACITIES BASED ON FOLLOWING CONDITIONS: 70°F DB/ 60° WB (INDOOR), 47°F DB/ 43°F WB (OUTDOOR).
- 6. INDOOR UNIT TO BE POWERED FROM OUTDOOR UNIT.

L													
	TAG	DESCRIPTION	MAKE \$ MODEL	REFRIGERANT	CAPACITY BTU/HR	SEER COOLING	HSPF HEATING	COOLING RANGE	HEATING RANGE	ELECTRICAL	M.C.A.	MAX BRK.	NOTES
	OU-I)	OUTDOOR UNIT	DAIKIN AC RXS30LVJU	R-410A	30,000 COOLING 34,800 HEATING	19.3	8.3	14-115°F DB	5-75°F WB	208V/IP	19.5	20 AMP	1)2

T NOTES:

I. FURNISH AND INSTALL ALL LIQUID/SUCTION PIPING BETWEEN EVAPORATOR UNIT AND CONDENSING UNIT. COORDINATE PIPE SIZING AND ROUTING WITH MANUFACTURER'S REQUIREMENTS AND

2. OUTDOOR CONDENSING UNIT TO BE SUPPORTED BY A METAL FRAME 24" ABOVE GRADE. METAL FRAME TO BE INSTALLED ON A CONCRETE PAD SIZED BY STRUCTURAL. CONDENSING UNIT TO BE SECURED TO THE METAL FRAME WITH VIBRATION ISOLATORS.

EQUIVALENT MANUFACTURER: TBD

TAG DESCRIPTION MAKE & MODEL CFM S.P. RPM ELECTRICAL NOTES: SF-I ELEVATOR MACHINE ROOM SUPPLY FAN GREENHECK FAN SQ-100-VG-1/4 1,227 0.5" 1750 120V/IPH/ I/4HP 1 2 3 4	FAN SCHEDULE							
	TAG	DESCRIPTION	MAKE # MODEL	CFM	S.P.	RPM	ELECTRICAL	NOTES:
	(SF-I)			1,227	0.5"	1750	120V/IPH/ 1/4HP	1\2\3\4\

NOTES:

- PROVIDE STRUCTURAL SUPPORT FOR FAN. PROVIDE HANGING NEOPRENE VIBRATION ISOLATORS AND
- SUPPORT FROM STRUCTURE. 2. FAN TO HAVE VARIGREEN SPEED CONTROL; CONTROLS CONTRACTOR TO PROVIDE 0-10V SIGNAL FOR SPEED
- MODULATION.
- 3. FAN TO BE PROVIDED WITH FACTORY 2" FILTER OPTION. FILTERS TO BE REPLACEABLE MERV 8 FILTERS. 4. PROVIDE FAN WITH STD. NEMA-I FACTORY MOUNTED AND WIRED DISCONNECT SWITCH.

FIRE	DAMPER SCHEDUL	E			
TAG	DESCRIPTION	MAKE # MODEL	DUCT SIZE	FRAME	BLADES
(FD)	BLADE TYPE	RUSKIN	_	5" X 16 GA. GALVANIZED	14 GAGE AIRFOIL-SHAPED, SINGL

- I. PROVIDE 165° FUSIBLE LINK FOR ALL DAMPERS.
- 2. PROVIDE INSULATED DOUBLE WALLED ACCESS PANEL ADJACENT TO FIRE DAMPER. 3. FIRE DAMPER SHALL EQUAL DUCT DIMENSIONS. VERIFY QUANTITIES WITH PLAN DRAWINGS.
- | FIRE DAMPER | DIBD2 TYPE C | HAT-SHAPED CHANNEL PIECE CONSTRUCTION

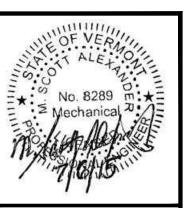
DIFFUS TAG	DIFFUSER \$ REGISTER SCHEDULE TAG MAKE \$ MODEL NECK TYPE MAX. CFM NOTES:									
ACFM	NAILOR #5IDV-O-18x14-S -AW-A	18x14	SUPPLY DIFFUSER	IIOO CFM	GRILLE TO BE MOUNTED TO BE DUCT MOUNTED.					
B	NAILOR #51EC-O-18x14-S -AW-A	18x14	EXHAUST GRILLE	1100 CFM	GRILLE TO BE MOUNTED TO BE DUCT MOUNTED.					
REMAI	RKS: -									

LOUVER SCHEDULE								
TAG	DESCRIPTION	MAKE \$ MODEL	FREE AREA %	OPENING SIZE	DEPTH	NOTES		
L-l	GARAGE INTAKE LOUVER(S)	RUSKIN #ELF6350DMP	62%	24"W x 30"H	6 ¹¹	(1) (2) (3) (4) (5)		
(L-2)	GARAGE INTAKE LOUVER(S)	RUSKIN #ELF6350DMP	62%	24"W x 30"H	6 ¹¹	(1) (2) (3) (4) (5)		

- PROVIDE LOUVERS WITH BIRD SCREEN.
- COLOR SELECTION BY ARCHITECT. COORDINATE FINAL SIZES WITH ARCHITECTURAL PLANS.
- PROVIDE CONNECTION FROM LOUVER TO PLENUM AS PER DETAIL DRAWINGS.
- 4. LOUVERS TO HAVE KYNAR FINISH. 5. PROVIDE SUBMITTAL FOR LOUVERS.

CONTROL DAMPER SCHEDULE								
TAG	DESCRIPTION	MAKE \$ MODEL	OPENING SIZE	FRAME	BLADES	OPTIONS		
(CD-I)	INSULATED DAMPER	RUSKIN CDTI-50	14"W X 10"H +/-	5"x1" .125 ALUM.	6063-T5 EXT. ALUMINUM	WITH FACTORY INSTALLED ACTUATOR.		
(CD-2)	INSULATED DAMPER	RUSKIN CDTI-50	14"W X 10"H +/-	5"x1" .125 ALUM.	6063-T5 EXT. ALUMINUM	WITH FACTORY INSTALLED ACTUATOR.		

- SEE CONTROLS FOR OPERATION OF DAMPER.
- PROVIDE 24V ACTUATOR. NORMALLY CLOSED, FAIL OPEN. ALL DAMPERS TO HAVE FLANGED FRAMES BOTH SIDES.
- ALL DAMPERS TO HAVE AIRFOIL BLADES.
- SUBSTITUTE DAMPERS MUST MATCH SPECIFIED DAMPERS IN INSULATING PROPERTIES AND PRESSURE DROP.



PRIME, STRUCTURAL Hoyle, Tanner

125 College Street, 4th Floor Burlington, VT 05401 Tel: (802) 860-1331

Associates, inc.



81 Maple Street Burlington, VT 05401 Tel: (802) 864-6844

ELECTRICAL KIRICK ENGINEERING ASSOCIATES, P.C. Electrical / Telecom Consulting



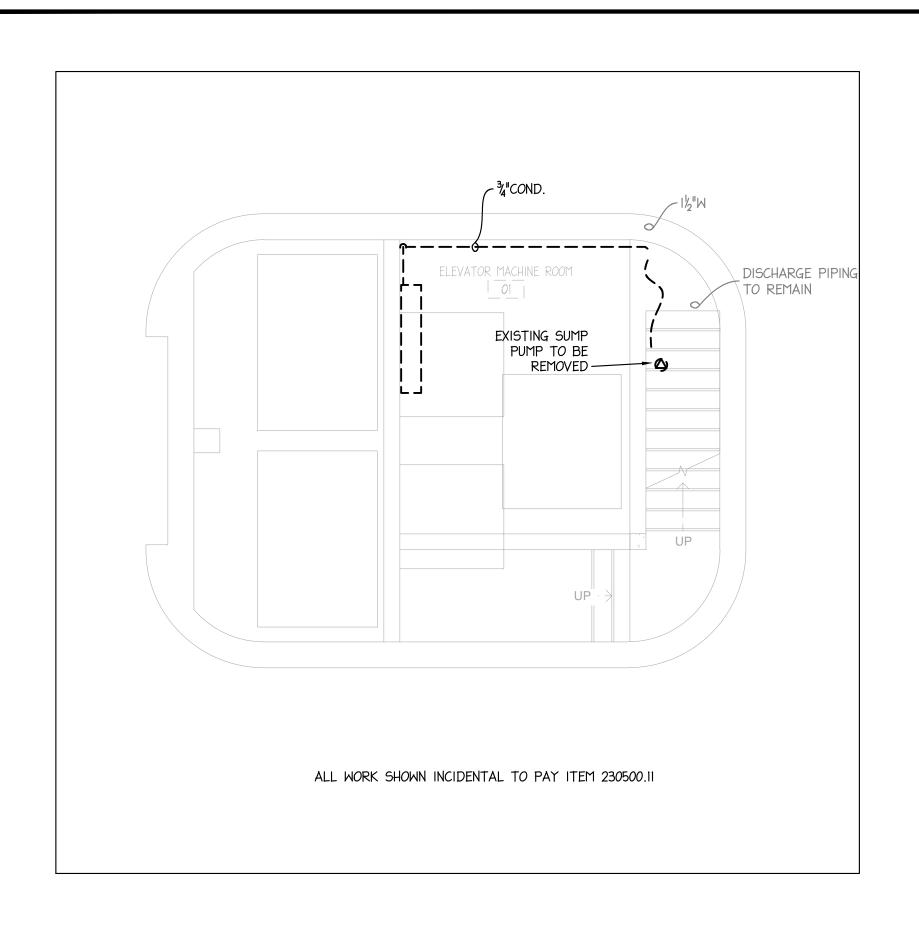
MECHANICAL



MARKETPLACE GARAGE RENOVATIONS - PHASE I BURLINGTON, VERMONT

SHEET NO.

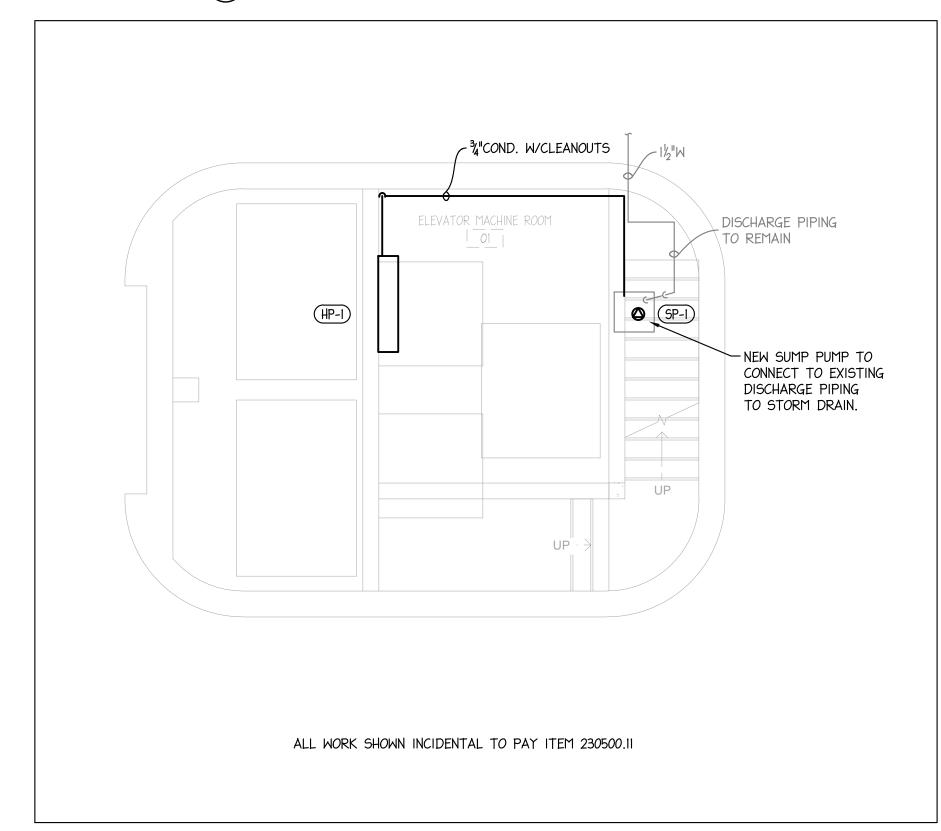
PROJECT NO. 909044 SHEET 25 OF 26



STAIR TOWER A (ELEV. MACHINE ROOM)

BASEMENT PLUMBING DEMOLITION PLAN

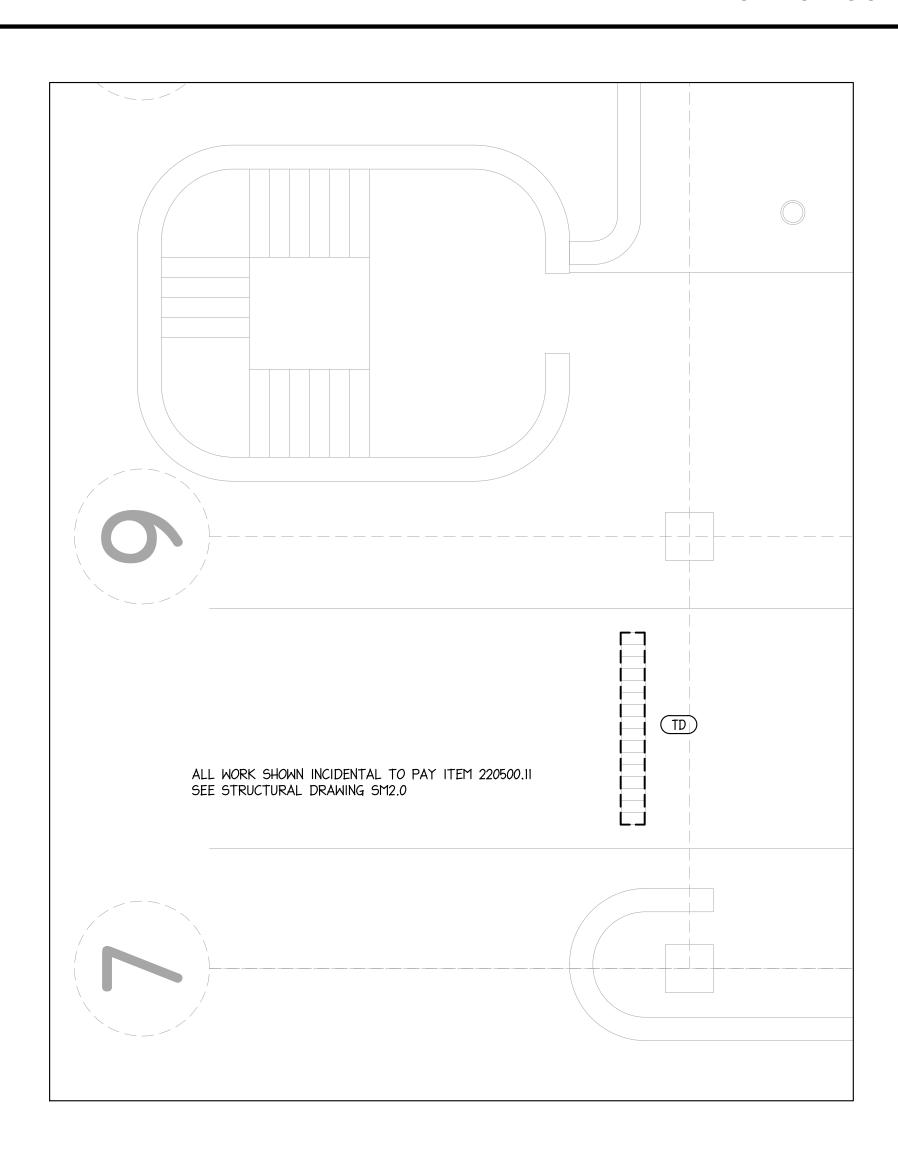
1/4"=1'-0"



STAIR TOWER A (ELEV. MACHINE ROOM)

BASEMENT PLUMBING NEW WORK PLAN

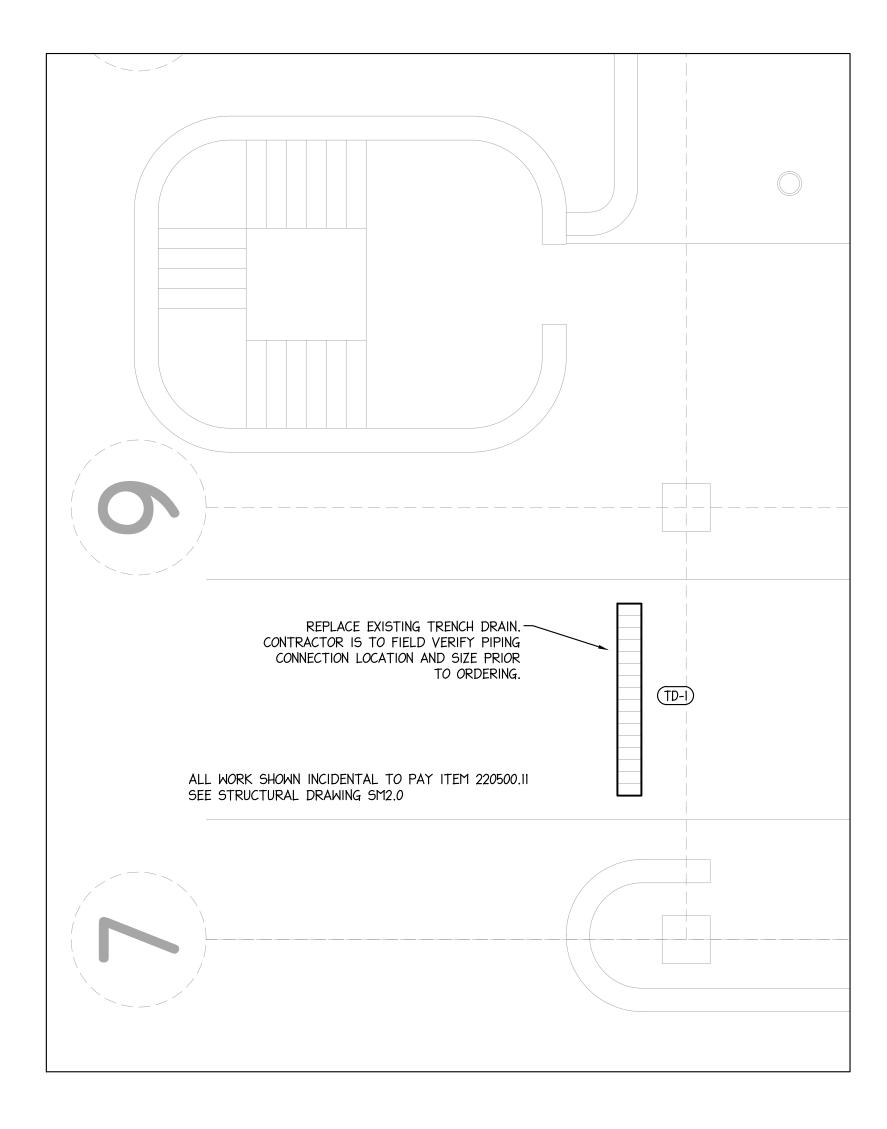
1/4"=1'-0"



ENTRANCE NEAR STAIR TOWER B

LEVEL ONE PLUMBING DEMOLITION PLAN

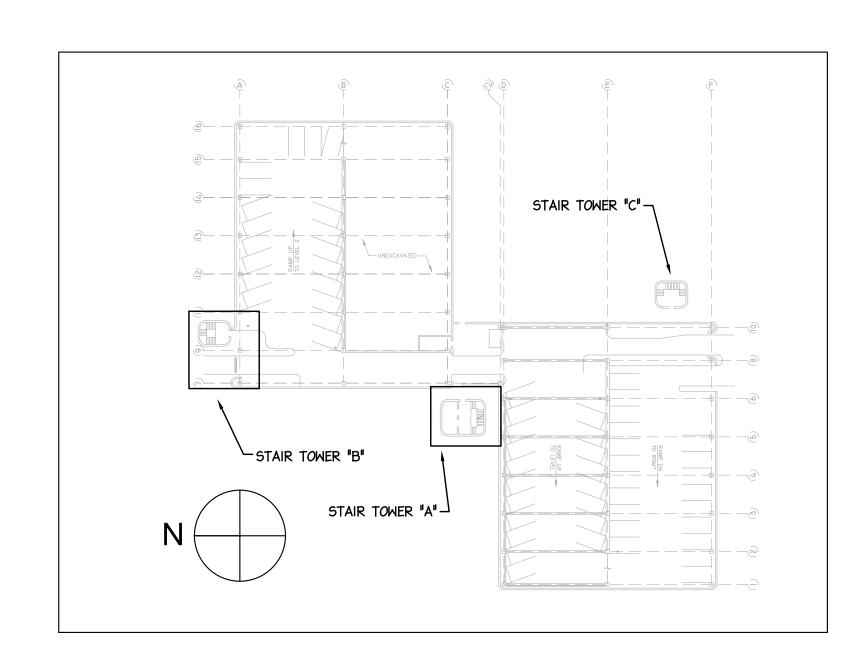
1/4"=1'-0"

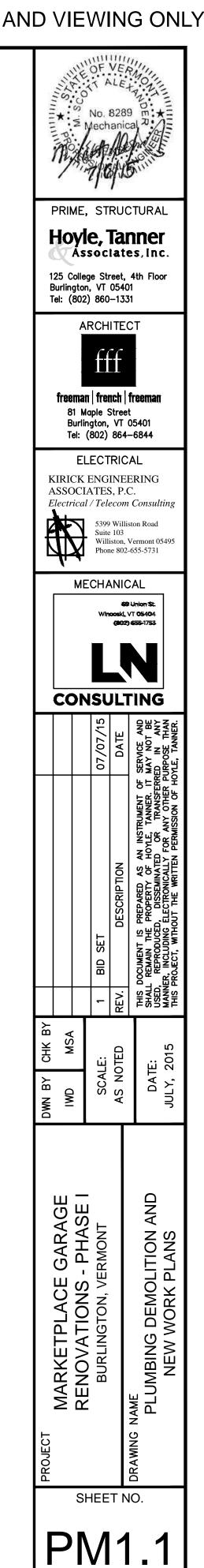


ENTRANCE NEAR STAIR TOWER B

LEVEL ONE PLUMBING NEW WORK PLAN

1/4"=1'-0"





PROJECT NO. 909044

SHEET 26 OF 26

5 KEY PLAN N.T.S.